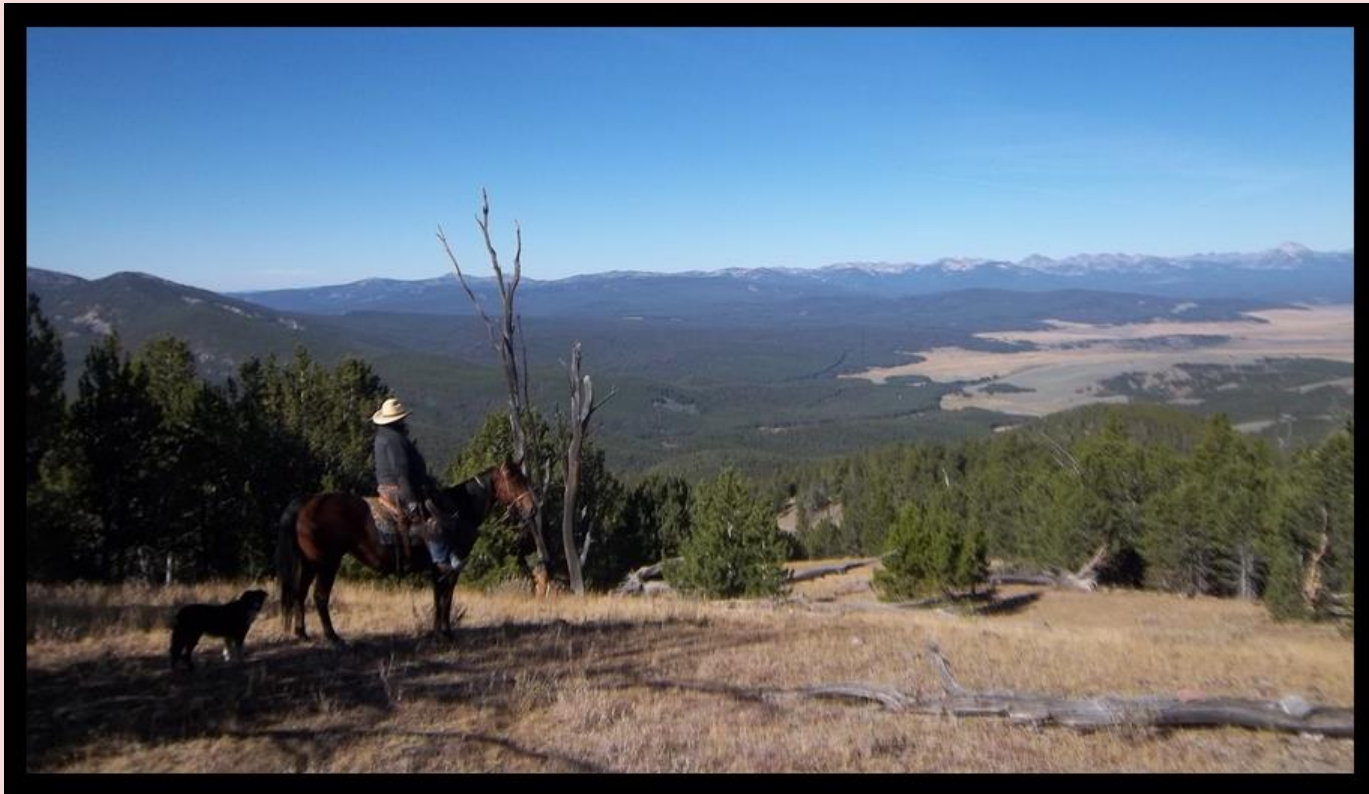




United States Department of Agriculture

Andrus and Bull Creek Allotments Range Improvement Project



Environmental Assessment



Forest Service
Region one

Beaverhead-Deerlodge National Forest
Dillon Ranger District

March 2018

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Cover Photo: Permittee gathering cattle in the high country on the Andrus Allotment, looking northwest across the allotment into the Big Hole valley.

Background

The Dillon Ranger District of the Beaverhead-Deerlodge National Forest (BDNF) is proposing several range improvement projects on two separate grazing allotments. The projects were initially scoped to the public on May 20, 2016, and are now being combined and published as an Environmental Assessment (EA) based on public comment and internal review. Specialists have been to the proposed development locations and prepared analysis accordingly. The Forest Service's intent is to furnish enough site-specific information to demonstrate consideration of environmental consequences of the proposed action, with a focus on the issues identified by the public and the interdisciplinary team.

The scope of this project is limited to the Andrus and Bull Creek domestic livestock grazing allotments on National Forest System (NFS) lands. Both allotments are on the Dillon Ranger District in Beaverhead County. The Andrus allotment is located in the Lima Tendoy Landscape, Selway-Saginaw Management Area and the Bull Creek allotment is located in the Pioneer Landscape, West Face Management Area.

The proposed project is an activity that implements the BDNF Land and Resource Management Plan (Forest Plan) and is not authorized under the HFRA; therefore it is subject to 36 CFR 218, Subparts A and B.

Purpose and Need

Both the Andrus and Bull Creek Allotments are managed under Forest Plan Interim grazing standards because their Allotment Management Plans (AMP's) are outdated. The Interim grazing standards are more stringent than the prior AMP standards, which creates a need for additional management tools.

Our Range Management Specialists diagnosed the need to better disperse cattle across the allotments. The purpose of this project is to provide additional tools for management and improve grazing distribution on the allotments.

The Forest Plan provides overarching direction, see the goals stated below, to improve condition and trend within grazing allotments. The Forest Service constantly seeks opportunity to work with pro-active grazing permittees to work toward meeting these goals.

Forest Wide Livestock Grazing Goals

Grazing Opportunities: sustainable grazing opportunities are provided for domestic livestock from lands suitable for forage production (Forest Plan, pg. 25).

Forage Use: Use of forage by domestic livestock will maintain or enhance the desired structure and diversity of plant communities and grasslands, shrublands, and forests. Use will be managed to maintain or restore riparian function as defined in the allotment management plan (AMP) (Forest Plan, pg. 25).

Forest Wide Aquatic Resources Grazing Goals

Livestock grazing: Grazing practices are designed to attain, or maintain, desired stream function (GM 1, Forest Plan, pg. 15)

Proposed Action:

This project proposes to develop 10 springs (three were eliminated because of the presence of a rare plant species and access difficulties), construct two drift fences totaling 1.5 miles of fence on the allotments, and install a hardened water crossing at the fence line's water gap on Bailey Creek. The permittees will provide all labor and maintenance, while the BDNF will supply materials. Work will be completed, weather permitting, between July 15 and October 15. We propose no change for grazing capacity or Animal Unit Months (AUMs).

Several mitigation measures for resource protection are outlined in the specialist reports below.

The Proposed Action for each allotment is described in table 1.

Table 1. Proposed Developments

Andrus Allotment (see Figure 4)	Bull Creek Allotment (see Figure 5)
Develop 6 springs	Develop 4 springs
Install two drift fences (1.5 miles)	
Construct a hardened water crossing/water gap on Bailey Creek	

Water Developments:

The completed spring developments will consist of a head-box (collection box), pipeline, and water trough set-up (Figures 1,2,3) to provide clean and reliable upland water sources. These new water sources will encourage livestock to occupy previously under-utilized upland areas within the allotment. Pipelines will be installed using a backhoe or small excavator and be buried. Each of the 10 spring developments will have approximately 400' of jackleg or barbed wire around each spring source to maintain spring function, and will preclude trampling of the water source. The water level of the tanks will be regulated with float valves to prevent excess diversion of water from the springs. The tanks will be used for the summer and fall grazing seasons and the diversion of water will be turned off when the pasture is not in use. When the spring developments are in use, diversion of water is shut off when the tank is full allowing the spring to function normally. The tank only begins to fill again as cattle drink and the float valve is lowered. All of the tanks will have wildlife escape ramps.

Because the developments will not exceed 35 GMP or 10 AC-FT per year, per spring source, the work can be done first and a Notice of Completion of Groundwater Development can be filed after.

The till parent material in the Big Hole Divide is associated with long-lasting springs. There are 14 developed springs on neighboring/adjacent allotments to Andrus and Bull Creek. Of these 14 springs, the majority were developed in the 1960s and are all still actively used. The Hydrologist feels there is a very low risk of losing the springs due to development.

Figure 1. Examples of newly developed trough and pipeline



Figure 2. Arial view of a spring development proposal

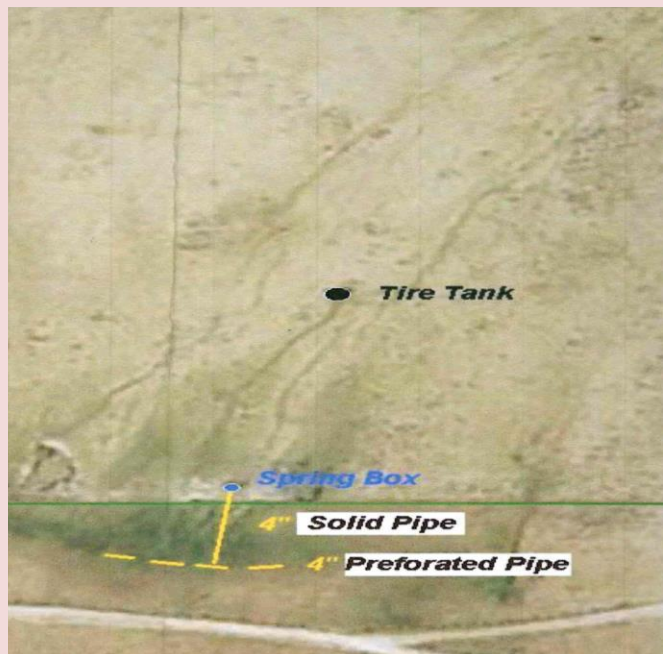


Figure 3. Example of a spring proposed for development.



Fences:

Construction of two new fences is proposed within the Andrus allotment. Both proposed fences will be constructed with 3-4 strands of barbed wire and include a cattle guard at the road crossings.

The first fence will be approximately one mile long and run east-west along a ridge north of Bailey Creek. The fence will create a barrier to prevent cattle from directly accessing Bailey Creek. Construction of this fence will create a riparian pasture and allow the permittee the ability to rest the riparian pasture and control when and where grazing occurs.

The second fence will be approximately half a mile long and run east-west on a ridge between Thayer and Short Creeks. Thayer is a westslope cutthroat trout (WCT) creek, and Short Creek is not. Despite an active range-rider program moving cattle to the Short Creek side of the pasture, the cattle tend to go back to Thayer Creek to congregate. The fence will divide one pasture into two pastures, and allow the permittee to control the timing and location of grazing. The fence will reduce grazing on Thayer creek, and reduce stress on the cattle from continually moving them in dusty conditions.

Wildlife friendly specs will be used to build the fences. The tables shown below come from Montana Fish, Wildlife and Parks "A Landowner's Guide to Wildlife Friendly Fences".

Hardened Water Crossing/Water gap:

A hardened water crossing will be built into the water gap along the fence line on Bailey Creek. This will reduce and confine bank disturbance by forcing cattle to drink and cross at one stable location along the creek (Figure 7). The crossing will be constructed by hauling large rock, cobble, and smaller road gravel from the nearby Andrus or Selway Gravel Pits. The stream will be excavated where the crossing will be installed and filter cloth and geo web materials will be installed to control sediment and increase stability of the crossing. Angular washed rock of various sizes will be installed on top of the geo cell to settle into the cells and lock in to increase stability and sediment control. The approaches on both sides will be excavated to a 4:1 foot slope, and the side slopes will be constructed with a similar grade. The approaches are to be 20-25' wide by 30' from edge of stream on each. Gravel will be spread to completely cover the approaches. A grade control structure of large rock will be placed at the up and down stream sides of crossing. The dirt excavated for the grade controls and from the approaches will be re-spread on top of the approaches and the trail to encourage vegetation to establish in the rock and gravel.

Figure 7. Upper photo: Area of concentrated cattle crossing (2010) Lower photo: Same location after hardened crossing installed (2011)



Specialist Reports and Determination:

Aquatic Resources

The Andrus allotment covers approximately 21,700 acres of which 885 acres are wetlands (MNHP, 2017). The Bull Creek allotment consists of approximately 6,700 acres with 378 acres of wetlands (MNHP, 2017). The majority of these wetlands, over 80 and 90% respectively, are palustrine emergent wetlands consisting mainly of the floodplain areas in the valleys. The proposed water developments will be placed in upland areas, helping to protect these riparian wetlands.

The Bull Creek allotment is in the Governor Creek watershed, which is not designated a fish key watershed nor restoration watershed in the BDNF Forest Plan. A fish key watershed contains populations of bull trout or westslope cutthroat trout (WCT) that exhibit numbers, life histories, age classes, recruitment levels, and reproductive characteristics representative of historic conditions. A restoration key water contains fish habitat, riparian habitat, and water quality recovered to desired conditions developed through watershed assessments. This section of watershed contains the non-native brook trout. No amphibian sighting have been confirmed within this allotment. The water developments are focused around the headwaters of the Nellie and Ginny Creek drainages. Both of these drainages have a limited riparian area due to topography.

The Andrus allotment contains the Andrus Creek watershed, a fish key watershed with a population of genetically pure WCT. A fish barrier (Hairpin Ranch Barrier) is planned to be built on private land below the forest boundary to protect this population. This will protect over 7.8 miles of WCT stream on NF Lands. These drainages also include a population of non-native Brook Trout. The barrier project includes a WCT restoration component led by Montana Fish, Wildlife and Parks (MT FWP) removing all non-native fish from this drainage. In addition to these fish species, Western toads and Columbia spotted frogs have been found in the riparian zones of these creeks (MNHP, 2017). The proposed springs cover a variety of drainages, but are mostly focused above the headwaters of North Fork Bailey Creek and Sage Creek. North Fork Bailey Creek has the largest wetland area of a drainage where developments are proposed at 131 acres (MNHP, 2017). The proposed spring development will assist in keeping livestock out of these wetland areas.

Fence effects

We proposed to construct two fences, one between Thayer and Short Creek, and another to the east of Bailey Creek. The fence on Bailey Creek will create a riparian pasture that will give the permittee further control over the amount of grazing in the riparian area. This fence will also incorporate a hardened crossing/water gap on Bailey creek. These crossings focus the impact of cattle on a small section of stream and leads to overall improvement in stream function and water quality (Massman, 1998) (Swanson, 2015) (DeCurto, 2005) (Bailey, 2004).

The fence between Thayer and Short Creek will take advantage of natural barriers to cattle movement and allow the permittee to better disperse cattle across the landscape. Each of these fences will be used with the development of off-stream water (OSW) sources to minimize grazing impacts in the riparian area.

Water Developments effects

We propose to develop 10 springs with pipelines and troughs across the two allotments.

OSW sources have been found to be most effective when developed between 200 and 1250m from riparian areas (Rigge, 2013). Studies have shown that when given the choice, cattle will spend 63-92% less time in the riparian area when OSW tanks are present (Miner, 1992) (Franklin, 2009) (Rawluk, 2014). This promotes more even grazing distribution across the landscape and limits the impact to riparian areas, thus protecting and enhancing that habitat (Wyman, 2006) (Swanson, 2015).

Each spring development is approximately 200 and 1250m from riparian areas and will be fenced off with the

water piped to a dry upland area, thus limiting the impact to the spring and enhancing riparian habitat. This will aid in the protection of any sensitive spring species (Rigge, 2013) (Hershler, 2014). Springs that did not contain enough flow to maintain their spring wetland complexes and related species were dropped from further consideration during project analysis.

The overall development of these OSW sources will encourage less use of the riparian areas by livestock thus improving conditions in the riparian area.

DETERMINATION

The proposed project will benefit riparian habitat and the aquatic species that rely on that habitat. It will spread grazing impacts more evenly across the landscape and prevent further impacts to the aquatic resources. Therefore, no significant effects are anticipated in aquatic resources across the project area.

Consistency with the Revised Forest Plan and Endangered Species Act

This proposal will be consistent with Revised Forest Plan standards and the Endangered Species Act. There are no effects to listed or sensitive species. The Riparian Management Objectives (RMOs) in the Forest Plan apply to developed stream channels which none of the proposed springs contain. The RMOs in the surrounding streams will be enhanced by this project due to further protection of the riparian areas and better grazing practices.

Cumulative Effects

No cumulative impacts are anticipated, since no negative direct or indirect effects are anticipated for aquatic resources.

Botany/Sensitive Plants

The following table displays those Threatened, Endangered, and Sensitive (TES) plant species that are known to (or may) occur on the BDNF. Depending on the specific project, the scope, magnitude and effects, this checklist will be considered as documentation for assessment of these TES plant species.

Review of available Forest Service GIS resources (2015), including Montana Natural Heritage Database (MNHP 2015), was first initiated to determine any known occurrences of threatened, endangered, or US Forest Service (USFS) Northern Region (R1) sensitive plant species (2011 list) within the project area. No federally listed plants are known to occur on the BDNF. Lemhi penstemon (*Penstemon lemhiensis*) is known to occur on an adjacent hillside.

Field surveys of all proposed spring developments were conducted on June 22nd and July 25th.

No sensitive plants were found within spring development areas proposed in this EA.

DETERMINATION:

Sensitive plant surveys were conducted in the summer of 2016 at all proposed spring developments. No sensitive plants were found. Therefore, no significant effects are anticipated to sensitive plants across the project area.

Table 2. Beaverhead-Deerlodge National Forest Listed and Sensitive Plant List

USFS REGION 1 SENSITIVE PLANT LIST (2011)	Populations occur on the District	Populations occur in the project area	Suitable habitat present	Impact to habitat or population	Effect
FEDERALLY LISTED PLANTS					
Spalding's catchfly (<i>Silene spaldingii</i>)	N	N	N		NE
Water howellia (<i>Howellia aquatilis</i>)	N	N	N		NE
BDNF SENSITIVE PLANTS					
Alkali primrose (<i>Primula alcalina</i>)	Y	N	N	NI	
Alpine meadow -rue (<i>Thalictrum alpinum</i>)	Y	N	N	NI	
Arctic pussytoes (<i>Antennaria densifolia</i>)	N	N	N	NI	
Austin knotweed (<i>Polygonum douglasii</i> ssp. <i>austiniae</i>)	N	N	N	NI	
Beaked spikerush (<i>Eleocharis rostellata</i>)	N	N	N	NI	
Beautiful bladderpod (<i>Physaria carinata</i> var. <i>pulchella</i>)	Y	N	N	NI	
Bitterroot milkvetch (<i>Astragalus scaphoides</i>)	Y	N	N	NI	
California false-hellebore (<i>Veratrum californicum</i>)	N	N	N	NI	
Colville Indian paintbrush (<i>Castilleja covilleana</i>)	N	N	N	NI	
Cusick's horse-mint (<i>Agastache cusickii</i>)	Y	N	N	NI	
Discoïd goldenweed (<i>Haplopappus macronema</i> var. <i>macronema</i>)	Y	N	N	NI	
English sundew (<i>Drosera anglica</i>)	N	N	N	NI	
Five-leaf cinquefoil (<i>Potentilla quinquefolia</i>)	Y	N	N	NI	
Giant helleborine (<i>Epipactis gigantea</i>)	N	N	N	NI	
Hall's rush (<i>Juncus hallii</i>)	N	N	N	NI	
Hiker's gentian (<i>Gentianopsis simplex</i>)	N	N	N	NI	
Hollyleaf clover (<i>Trifolium gymnocarpon</i>)	N	N	N	NI	
Idaho fleebane (<i>Erigeron asperugineus</i>)	Y	N	N	NI	
Idaho sedge (<i>Carex idahoensis</i>)	Y	N	N	NI	

USFS REGION 1 SENSITIVE PLANT LIST (2011)	Populations occur on the District	Populations occur in the project area	Suitable habitat present	Impact to habitat or population	Effect
Large-leaved balsamroot (<i>Balsamorhiza macrophylla</i>)	N	N	N	NI	
Lemhi penstemon (<i>Penstemon lemhiensis</i>)	Y	N	N	NI	
Mealy primrose (<i>Primula incana</i>)	Y	N	N	NI	
Missoula phlox (<i>Phlox kelseyi</i> var. <i>missoulensis</i>)	N	N	N	NI	
Musk-root (<i>Adoxa moschatellina</i>)	N	N	N	NI	
Payson's bladderpod (<i>Pysaria carinata</i> var. <i>carinata</i>)	N	N	N	NI	
Peculiar moonwort (<i>Botrychium paradoxum</i>)	N	N	N	NI	
Pod grass (<i>Scheuchzeria palustris</i>)	N	N	N	NI	
Primrose monkeyflower (<i>Mimulus primuloides</i>)	Y	N	N	NI	
Sapphire rockcress (<i>Arabis fecunda</i>)	Y	N	N	NI	
Small onion (<i>Allium parvum</i>)	N	N	N	NI	
Stalked-pod crazyweed (<i>Oxytropis podocarpa</i>)	N	N	N	NI	
Storm saxifrage (<i>Saxifraga tempestiva</i>)	Y	N	N	NI	
Tapertip onion (<i>Allium acuminatum</i>)	N	N	N	NI	
Tufted club-rush (<i>Tricophorum cespitosus</i>)	N	N	N	NI	
Wavy moonwort (<i>Botrychium crenulatum</i>)	N	N	N	NI	
Weber's saw-wort (<i>Saussurea weberi</i>)	N	N	N	NI	
Western Joepywe weed (<i>Eupatorium occidentale</i>)	N	N	N	NI	
Western moonwort (<i>Botrychium hesperium</i>)	N	N	N	NI	
Whitebark pine (<i>Pinus albicaulis</i>)	Y	N	N	NI	
Wolly-headed clover (<i>Trifolium eriocephalum</i>)	N	N	N	NI	

Y = Yes; N = No; P = Possible; NI =No Impact; MIIH =May Impact Individuals or Habitat, but will not likely contribute to a trend towards federal listing or loss of viability to the population or species; WIFV =Will Impact Individuals or Habitat with a consequence that the action may contribute to a trend towards federal listing or cause a loss of viability to the population or species; NE= No Effect; NLAA = Not Likely to Adversely Affect; LAA = Likely to Adversely Affect

Forest Plan Compliance: There are no standards for sensitive plants in the Forest Plan.

Cumulative Effects: No cumulative impacts are anticipated, since no negative direct or indirect effects to sensitive plants are anticipated.

Heritage Resources

A cultural resource review for the Andrus Allotment was completed by E. Chambers-Koenig on July 25, 2016. No sites were located inside the project area.

A cultural resource review for the Bull Creek Allotment was done in a previous Roadside Hazard Tree removal project. However, the sites will be re-evaluated by the Forest Archeologist before construction to double check spring areas.

DETERMINATION:

Andrus: The project may proceed as planned, now or at any time in the future. If cultural resource sites or artifacts are discovered during project implementation the Forest Archeologist should be notified immediately.

Bull Creek: The project will not proceed until the site has been evaluated for its eligibility for listing in the National Register of Historic Places through the Section 106 consultation process with the Montana SHPO. SHPO has up to 30 days to comment on this undertaking.

Hydrology

Fence effects

The proposed fence is designed to limit grazing of Bailey Creek to improve stream conditions and enhance aquatic habitat. Bailey Creek is a native WCT stream which has been managed effectively historically using Annual Use Levels (AULs) including stubble height and bank disturbance standards. These standards were the primary measure which limited the grazing season in the allotment, to ensure grazing practices were not degrading stream conditions. The proposed fence would allow the permittees to better utilize the entire allotment and for more of the permitted season while maintaining standards on Bailey Creek.

The fence would create a riparian pasture to provide for better flexibility for livestock management, and would improve overall habitat conditions on Bailey Creek. There are no anticipated impacts associated with the fence construction. A water gap would be necessary to provide cattle access to the stream, which could result in substantial stream impacts at that location; the water gap would therefore be hardened to limit impacts. Overall the conditions on Bailey Creek would be greatly improved by the proposed fencing.

Water Developments effects

There are 10 water developments proposed across both allotments. They will all be developed springs with pipelines and troughs.

The spring source at the developed sites would be completely fenced to protect the spring from livestock grazing. This would be an improvement over the existing condition in which the site is accessible to grazing pressure.

The springs were assessed to determine if there are sufficient sources of water to support the adjacent wetland complex without any anticipated negative effects from the water withdrawal. They were also assessed based on their location on the landscape and suitability to successfully disperse grazing. Wetland complexes that have a number of locations of surface water upwelling to support wetland vegetation tend to be more suitable for development because they are more resilient in the event that flow is negatively affected during the development actions. We abandoned some sites that did not meet this criteria and added others to provide a range of sites that could be developed to meet the purpose and need.

Scoping Response

Based on scoping comments received, we took a closer look at the ecological impacts associated with the proposed activities effects on specific spring sources and adjacent landscapes that could experience indirect effects.

The proposed spring development sites meet the project's need to improve distribution of cattle while limiting ecological impacts. We selected the proposed sites after looking at a number of springs in the area (1-2 additional adjacent springs for each site) to ensure there was enough area of surface water upwellings to be able to maintain the water level to associated wetland vegetation.

Studies have documented mixed results associated with developing off-site water (Bryant, 1982; McIver, 2001; Franklin, 2009). While some showed limited success in redistributing cattle, others had measurable improvements to riparian condition. The range of these effects appear to be influenced by biological stressors in the environment (e.g., shade) that affect grazing distribution patterns. This project will provide benefits associated with the protection of Bailey Creek even if the perfect grazing distribution is not achieved with the proposed springs developments. We believe the proposed actions are the best treatments to properly manage and distribute cows on the landscape.

DETERMINATION

There may be some localized modifications to wetland environments although no long term effects are anticipated to wetland size or characteristics. This assessment is based on the selection of the most suitable wetlands with multiple upwelling sources to ensure limited effects to a small percentage (less than 1%) of the wetland acres across the project area. By expanding the distribution of water on the landscape, we expect the project activities to improve riparian conservation area (RCA's) in the project area by eliminating or reducing grazing impacts on the proposed developed springs and streams through protection measures. We do not expect any measurable negative effects to hydrology resources across the project area.

Consistency with the Revised Forest Plan, Clean Water Act, Executive Order 11988 (Floodplains) and Executive Order 11990 (Wetlands)

This proposal will be consistent with Revised Forest Plan standards and the Clean Water Act. There are no effects to TMDL listed streams, floodplains, wetlands or municipal watersheds expected.

Cumulative Effects

No cumulative impacts are anticipated, since no negative direct or indirect effects are anticipated for hydrology resources.

Recreation/Special Uses

This project is located south of the Big Hole Divide on the Big Hole Landscape Management Area. The proposed springs are adjacent to Forest Service Road 919 – offering access to a wide array of recreational dispersed recreation opportunities. No developed Forest Service facilities or amenities are located within or adjacent to the project sites. The Andrus and Bull Creek Allotments are adjacent to private ranch land. Four of the ten springs proposed for development are located within the Tash Peak IRA inside the Andrus allotment. The area is generally used for various motorized and non-motorized dispersed recreation activities and is popular with hunters during fall deer and elk seasons.

Effects to Recreation or Special Uses

The Andrus allotment proposed action is to develop six springs and install small sections of fencing (totaling 1.5 miles) to protect streams and springs from grazing impacts. The scheduled work will occur between July 15 and October 15 and therefore will not significantly affect deer/elk rifle season, opening on October 21.

Archery season begins September 2 and archery hunters and recreationalists may see or hear work occurring

in the project area. Several outfitter guides use the area during the fall hunting season and may experience impacts similar to the general public. Project activities will be short in duration and implementation is planned to be completed by October 15, 2018. Impacts to recreationists are not anticipated to be significant.

The project is not expected to alter the use of nearby roads or the area during the implementation of activities, and no temporary closures will be needed.

Effects to Research Natural Areas, Wilderness or Inventoried Roadless Areas

Two (of the ten) springs proposed for development are located within the Tash Peak Inventoried Roadless Area (IRA) inside the Andrus Allotment. Tank number six is located within the IRA and would be visible from FS Road 919. We will use earth toned water storage tanks and minimal fence construction to preserve the scenic integrity of the IRA. There are no Research Natural Areas or Wilderness within the project area.

Table 3. 2001 Roadless Rule Characteristics and Effects to the Tash Inventoried Roadless Area

Roadless Area Characteristics	Effects to Tash IRA
High quality or undisturbed soil, water, and air; Sources of public drinking water; Diversity of plant and animal communities; Habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land; Reference landscapes	<ul style="list-style-type: none"> • Fence and water tanks will help protect riparian areas from grazing impacts • Water sources and soils further safeguarded • Plant and animal communities will benefit from reduced grazing impacts • Habitat for species will improve with reduced grazing impacts • Footprint of the project will not fragment habitat over the IRA at large as the tanks and fencing are in close proximity to the boarder
Natural appearing landscapes with high scenic quality	<ul style="list-style-type: none"> • Area will retain high scenic quality • Only Tank Eight is visible from FS Road 919
Primitive, semi-primitive non-motorized and semi-primitive motorized classes of dispersed recreation	<ul style="list-style-type: none"> • Classes of dispersed recreation will remain unchanged
Traditional cultural properties and sacred sites; and Other locally identified unique characteristics.	<ul style="list-style-type: none"> • No adverse effect – see Heritage Section

FOREST PLAN COMPLIANCE

The project is in agreement with the Beaverhead-Deerlodge Forest Plan with regard to Recreation. No changes to recreational opportunity result from the project. **See Table 10.**

Direct effects:

- Sight and sound of the construction of fence, pipeline, and stock tanks
- Archery hunters may encounter construction work during the 2018 Deer / Elk Season
- Tank Eight and fencing will be visible from FS Road 919 within the Tash IRA
- Four tanks and 1.5 miles of fenced sections would be permanently constructed within the boundary of the IRA

Indirect effects:

- Archery hunters may choose to hunt in areas away from the project sites during implementation

Cumulative effects:

Cumulative effects of the project further impact the scenic quality of the area. However, the fencing, pipelines, and stock tanks are within the reference landscape that characterize this area. FS Road 919 demarcates the IRA's boundary and is adjacent to private ranch lands. These large ranches include boundary fences associated with grazing cattle. Therefore, the project is not out of character with the surrounding forest landscape viewed from FS Road 919, even though it lies inside the IRA.

Benefits:

Benefits should include improved stream and riparian condition for an overall improved recreation experience.

Negatives:

Increased human presence in the area during the construction of fencing, crossings, and tanks may negatively affect the scenic integrity over the summer and fall months of project implementation. Sections of fencing, pipeline burial, and developed springs with storage tanks within the IRA are evidence of human presence.

Comments, Design Criteria, And/ Or Mitigation:

Design criteria to preserve the scenic integrity of the IRA shall include using earth toned water storage tanks and minimal fence construction within the IRA. Public safety should be addressed with informational signs placed on roads and trails near project area to notify the public of activities and potential hazards. Public service announcements and notices should be made to inform the public of the project prior to implementation.

DETERMINATION:

The placement of tanks and fencing associated with the Andrus / Bull Creek proposal should prove beneficial to the riparian and aquatic health of the affected watersheds. Permanent fencing and two water tanks will not significantly alter the natural characteristics of the Tash IRA, due to the close proximity of the improvements with FS Road 919 and adjacent private ranch lands. Evidence of pipeline installation will be negligible after several growing seasons.

Range and Weeds

Both allotments are managed under 4 pasture deferred rest-rotation grazing systems. The Andrus allotment contains 14,434 acres and is a 300 pair permit with a season of use of 6/28 to 9/27. The Bull Creek Allotment contains 3,366 acres and is a 200 pair permit with a season of use of 6/26 to 9/10. Since 2010, both allotments have been managed under Forest Plan Interim Grazing Standards. These grazing standards were put into place after the AMPs were signed (Andrus 1987, Bull Creek 1990) and take precedence until new AMPs are developed.

Both allotments have pro-active grazing permittees that spend time on allotments herding and doctoring cattle. The permittees have requested permission to construct the improvements to help them meet grazing standards that were not in place when they signed the previous AMPs.

Permanent Vertical Photo Plot (VPP) studies in the upland range types in each pasture of both allotments were established in 1977 and have each been reread three times since then. These studies were set up to monitor range conditions and change as they relate to litter and vegetation cover, bare ground and livestock forage. VPP's are based on the same concept as Parker Three Step studies but the rooted frequency of the plants are read in a 25 position grid within 4-2 foot square plots instead of every foot along a stretched 100 foot tape. These study area records are at the Dillon Ranger District in the 2210 files and are summarized in the project file. They prove that overall, range conditions are in fair to good condition on both allotments with trends moving towards a later seral stage when managed as is.

Studies show that cattle exhibit a hierarchy of physiological needs that determine thresholds for movement

within pastures. The greatest need is water (Stuth, 1991). Owensby states “proper distribution of livestock water on range areas is the most important grazing distribution tool” and that “controlled access to water is extremely important” in managing distribution. He also found, when managing pastures, fencing and water location give the highest returns in cattle distribution. However, water is the main factor that influences livestock use of landscapes in both summer and winter months (Bailey, 2005).

Best management practices will be used to make sure equipment is clean of weeds as to prevent the spread of weeds. Noxious weeds will be controlled following procedures in the Noxious Weed Control Program Record of Decision (2002) for the Beaverhead-Deerlodge National Forest. Known weed infestations are annually treated and project locations will be monitored.

DETERMINATION:

As a Rangeland Management Specialist, I strongly recommend this project to improve cattle distribution and increase livestock management options on the allotments. This will set every resource up for success now and in the future. We have a responsibility to proactively manage our grazing allotments to the best of our ability. No significant negative effects are anticipated to the range resources within the project areas.

Scenery

Effects Analysis:

The Andrus and Bull Creek range improvement projects are within the scenery expectation of forest visitors and therefore meet a Scenic Integrity Objective (SIO) of Low. The definition of a Low SIO is that Human activities such as vegetative and landform alterations may dominate the original, natural landscape character but should appear as natural occurrences when viewed at background distances.

Mitigation:

Mitigation efforts to increase scenic integrity include using brown fiberglass spring tanks and natural color fencing. If a tire tank is to be used, they will be in locations with low visibility.

Forest Plan Compliance (applicable scenery standards):

Standard 2: Projects in non-motorized and summer backcountry allocations will be designed to meet a minimum SIO of Moderate. Use the Scenic Concern Level List in Appendix A, Forestwide Scenic Attractiveness GIS layer, and Scenic Integrity Level Matrix above to determine a site specific SIO. Project-level analysis may determine a higher SIO to be appropriate.

Landscape Visibility Mapping concern levels one and two are not impacted by the projects located in the Big Hole and Pioneer Landscape areas.

DETERMINATION:

No significant effects are anticipated to scenery resources within the project areas.

Soils

Effects Analysis:

Effects from the pipeline installations and construction of the hardened crossing would include some soil disturbance; however, the disturbance associated with the proposed activities is expected to be short term and to occur within a small area. Effects may include compaction, rutting and displacement of top soil. However, the soil quality standards are not intended to prohibit resource management practices and in this case, the long term soil disturbance of the small area of soil affected by the installation of pipelines and placement of the hardened crossing does not outweigh the benefits to hydrology, aquatics, and soils within the larger area.

Mitigation:

Construction of the hardened crossing on Bailey Creek will occur when soils are dry to avoid compaction and rutting from machinery.

Construction of the water developments will occur when soils are dry to avoid compaction and rutting due to machinery used to bury the pipeline.

Forest Plan Compliance:

See Table 10 for Forest Plan Compliance with Soil Standards

Applicable Soil Standards:

Standard 1: The most current Region Soil Quality Standards are adopted as Forest Plan soil standards.

“Soil Quality Standards apply to lands where vegetation and water resource management are the principal objectives, that is, timber sales, grazing pastures or allotments, wildlife habitat, and riparian areas. . . . They are not intended to prohibit other resource management practices such as installing water bars or preparing sites for planting as long as such practices are consistent with long-term sustainability of the soil resource.” (FSM 2500 – Watershed and Air Management, R-1 Supplement 2500-99-1, Effective 11/12/1999, Chapter 2550 – Soil Management)

This project meets soil quality standards in that the spring developments, including pipeline installation, and construction of a hardened crossing will provide benefits to hydrology, aquatics, and soils in the long term, despite the short term soil compaction and displacement that will occur at the pipeline excavation areas and crossing site.

DETERMINATION

No significant direct or indirect effects are anticipated to soils resources within the project area. Long term benefits outweigh short term disturbance.

Wildlife

The Proposed Action could result in a short term disturbance in the form of avoidance behavior, by a few individuals within wildlife populations found in the project areas. However, construction events will be short-term in duration and therefore this direct effect will be negligible.

Mitigations

Properly store all attractants to minimize potential effects to transient grizzly bears. Attractants include but are not limited to food and beverages. Attractants should be stored in a bear-resistant container or hard-sided vehicle or hung at least 10 feet high and 4 feet out from any vertical support when unattended.

No seeding or planting of palatable grasses, forbs or shrubs.

Project activities are within 500 meters of an open or restricted road.

Project activities do not exceed administrative use on motorized access routes.

Project activities occur outside the grizzly bear Spring Period for the Greater Yellowstone Area population (March 1 – July 15).

Notify the District Wildlife Biologist within 24 hours to determine appropriate mitigation if active Threatened, Endangered, or Sensitive (TES) bird nests are found.

Install wildlife friendly escape ramps in all spring troughs (Taylor and Tuttle 2007)

Construct barbed wire fences using wildlife friendly guidelines (Page 2012)

DETERMINATION:

Summary Table of Effects

Table 4. Summary table of effects to wildlife species.

	Direct and indirect Effects	Cumulative Effects
Federally Listed and Proposed Species	May affect but not likely to adversely affect grizzly bear and Canada lynx. Would not jeopardize the continued existence of the Distinct Population Segment (DPS) of the wolverine.	None
Sensitive Species	May affect individuals or habitat on < 3 acres but would not contribute to a trend towards federal listing or loss of viability to the population or species: black-backed woodpecker, flammulated owl, Greater sage grouse, gray wolf, Great Basin pocket mouse, pygmy rabbit, spotted bat, Townsend's big-eared bat	None
Management Indicator Species	No changes to Open Motorized Road and Trail Density (OMRTD) or secure areas. Minor, temporary disturbance may occur during implementation. Improved riparian conditions would benefit elk foraging habitat. Project not in known mountain goat distribution. Would not jeopardize the continued existence of the DPS of the wolverine.	None
Migratory Birds	May affect due to temporary disturbance and habitat on < 3 acres	None

Federally Listed and Proposed Species

The Federally Listed and Proposed species known to occur or that may occur on the BDNF include the grizzly bear, Canada lynx, and wolverine (Table 5). In accordance with the Endangered Species Act, implementation regulations, and FSM 2671.4, the Forest is required to consult with the U.S. Fish and Wildlife Service (USFWS) on any prospective agency action authorized, funded or carried out by that agency if the agency believes that the action would likely affect any species listed as threatened or endangered. In October 2014, the Programmatic Biological Assessment (BA) for Activities that are Not Likely to Adversely Affect Canada lynx, Grizzly bear, and Designated Canada Lynx Critical Habitat was updated (USDA Forest Service 2014) and a concurrence letter from the U.S. Fish and Wildlife Service was received on December 1, 2014. The BA covers the grizzly bear and the Canada lynx and is referred to as 'the screens.' A revised BA must be prepared if: 1) new information reveals affects, which may affect threatened, endangered, and proposed species or their habitats in a manner or to an extent not considered in this assessment; 2) the proposed action is subsequently modified in a manner that causes an effect, which was not considered in this assessment; or 3) a new species is listed or habitat identified, which may be affected by the action.

Table 5. Federally Listed and Proposed Species known to occur or that may occur on the Beaverhead-Deerlodge National Forest.

Species	Status	Habitat in project area?	Effect on habitat?	Species present?	Effects Determination
Grizzly Bear (Ursus arctos)	Threatened	Yes	No	Unlikely	May Affect, Not Likely to Adversely Affect

Canada Lynx (Lynx canadensis)	Threatened	Yes	Yes	Unlikely	May Affect, Not Likely to Adversely Affect
Canada Lynx Critical Habitat	Not designated on the BDNF	No	No	Unlikely	No Effect
Wolverine (Gulo luscus luscus)	Proposed Threatened	Yes	No	Unlikely	Would not jeopardize the continued existence of the DPS of the wolverine.

Grizzly Bear: Direct and Indirect Effects

Grizzly bears are not known to occur in the project area, the project area is not within a grizzly bear recovery zone, the activity is within 500 meters of an open motorized or restricted route, the project is not a vegetative management project, and project activities would occur outside of the GYA Spring Period (March 1—July 15). Approximately 0.08 acres of mapped denning habitat occur where the Andrus Creek fence lines would tie in to forested habitat. Some small diameter lodge pole pine trees/snags may be felled to access the fence construction locations at these sites. No ground disturbance would occur. Therefore, effects to bears are not likely. Part 1 of the screens has been met by:

This project complies with wheeled motorized access direction from USFWS;

This project complies with the forestwide food storage order; and

This project does not propose seeding or planting of grasses, forbs or shrubs.

Part 2 of the screens is met by:

Activity Number 2 – Mechanical Equipment: Off-road equipment operation, such as site preparation, fuel piling, log yarding, etc. occurs outside Spring Period and within 500 meters of an open or restricted road.

Activity Number 6 – Range: Infrastructure development. Project occurs outside Spring Period or completed in ≤ 1 day in riparian areas; project does not result in an increase in public use or user type; motorized vehicle use occurs on existing open roads, or if on restricted roads, use does not exceed administrative use levels.

Grizzly Bear: Cumulative Effects

The cumulative effects analysis area includes three 6th field sub watersheds: Upper Bull Creek, Upper Governor Creek, and Andrus Creek for a total of 68,396 acres which is slightly larger than a female bear's home range size of 59,800 acres. Of the 68,396 acres in the action area, approximately 51% (34,847) acres are under Forest Service administration, 7% (4,833 acres) are Montana state trust lands, and 42% (28,715 acres) are private lands. Past, present, and reasonably foreseeable future actions that could affect grizzly bears include livestock grazing, motorized use, hunting, dispersed recreation, and other human activities. Forest Service projects that would occur concurrently with this project include Roadside Hazardous Tree Removal #8 and West Selway Irrigation Diversions Repair/Selway Meadows hardened crossings. Based on the limited project disturbance and lack of impacts to grizzly bear habitat, potential effects are not expected to notably contribute to cumulative effects from other actions in the project area.

Canada Lynx: Direct and Indirect Effects

The BDNF is considered secondary habitat for the Canada lynx which are considered 'transient' on the Forest. Using the screens, this project may affect but would not likely adversely affect Canada lynx or their habitats. The project would have no effect to critical habitat because no critical habitat has been designated

for the BDNF.

The proposed activities occur in approximately 1 acre of lynx modeled general habitat. Modeled lynx linkage habitat overlaps two of the spring developments and the Bull Creek pipeline. Ground-disturbing activities for the spring developments would occur on 0.01 acres of vegetation mapped as snowshoe hare stem exclusion and non-habitat. Ground-disturbing activities for the pipeline would occur on 0.10 acres of vegetation mapped as non-habitat for the snowshoe hare. Connectivity and movement of lynx in the linkage area would not be affected a result of this small amount of vegetation removal on 0.11 acres of mapped snowshoe hare stem-exclusion and non-habitat. No snowshoe hare habitat would be removed. One of the Andrus Creek fence lines would tie into forested habitat in mapped stem-exclusion habitat. A small number of lodge pole pine trees/snags in this stem-exclusion habitat may be felled to access fence construction locations at this tie-in site. No snowshoe hare habitat would be removed.

The project would move cattle away from riparian areas, thus improving riparian habitat conditions, similar to conditions that would have occurred under historic disturbance regimes.

Appendix A lists how the project complies with the Northern Rockies Lynx Management Direction Record of Decision (USDA Forest Service 2007).

Part 1 of the screens has been met by:

Lynx may be present on the BDNF

Project is in a Lynx Analysis Unit (LAU)

Project is not a vegetation management project

Proposed activities occur in approximately 1 acre of lynx modeled general habitat.

Project occurs in mapped snowshoe hare stem exclusion and non-habitat. Approximately 0.01 acres of stem exclusion habitat may be removed due to spring trough installation.

Using Table B2, Part 2 of the screens has been met by:

Screen # 1 Roads and Road Maintenance. General Road Use. This includes hauling timber, removing mining waste and materials, and moving livestock over federal roads for which permits are required. It also include routine road use by administrative units to carry out work associated with recreation, range, timber and minerals management, fire prevention and suppression, inventories, surveys, and other monitoring activities; this includes use of roads consistent with existing travel plans.

Screen # 5, Other Special Uses. This includes non-recreation special uses and mineral and energy exploration and development and maintenance of existing sites, corridors, or other facilities and is often carried out by the entity that owns the structures or facilities; maintenance may include vegetation blading or cutting, or spraying to reduce brush and reduce the invasion of shrubs and trees among other activities.

Screen # 7, Ditches and Diversions. Activities do not reduce snowshoe hare habitat.

Canada Lynx: Cumulative Effects

The cumulative effects analysis area includes three LAUs totaling 41,396 acres: #301 (13,913 acres), #344 (8,536 acres), and #348 (18,947 acres). Of the 41,396 acres, approximately 64% (26,496 acres) are under Forest Service administration, 2% (975 acres) are Montana State Trust Lands, and 37% (13,925) are private lands. Past, present, and reasonably foreseeable future actions on these lands that could affect lynx include livestock grazing, motorized use, dispersed recreation, and other human activities. Forest Service projects that would occur concurrently with this project include Roadside Hazardous Tree Removal #8 and West Selway Irrigation Diversions Repair/Selway Meadows hardened crossings. Based on the limited effects to lynx

habitat, potential effects are not expected to notably contribute to cumulative effects from other actions in the project area.

Wolverine

The wolverine is considered a proposed threatened species (USDI Fish and Wildlife Service 2016). The proposed action would not jeopardize the continued existence of the Distinct Population Segment (DPS) of the North American wolverine because:

The project would not contribute to the identified Primary or Secondary threats to the wolverine DPS (climate change, inadequate regulation of climate change, harvest, and small population size);

None of the proposed activities are considered a threat to the DPS;

The project activities and other cumulative effects would result in relatively small-scale disturbances in relation to the large wolverine home range size, and wolverine are able to adjust to and co-exist with moderate levels of disturbance; and

The projects and cumulative effects would not result in barriers to dispersing.

Sensitive Species

The Forest Service assesses population viability for sensitive species by examining key habitat requirements in the analysis area (Inland Empire Public Lands Council et al v. United States Forest Service, United States Court of Appeals, Ninth Circuit, July 3, 1996). Information on sensitive species status and distribution, biological requirements, and habitat use in the Forest was compiled in the Revised Biological Evaluation for the Plan FEIS (USDA Forest Service 2009). The project may affect individuals and/or habitat for the black-backed woodpecker, flammulated owl, Greater sage-grouse, gray wolf, Great Basin Pocket Mouse, pygmy rabbit, spotted bat, and Townsend's big-eared bat (Table 6). These effects are either temporary due to short-term disturbance and/or are very small in scale at less than 3 acres.

The cumulative effects analysis boundary is the project area. Past, present, and reasonably foreseeable future actions that could affect Sensitive Species include livestock grazing, vegetation management, and hazardous tree removal. Forest Service projects that would occur concurrently with this project include Roadside Hazardous Tree Removal #8 and the West Selway Irrigation Diversions Repair/Selway Meadows hardened crossings. Given that the level of noise disturbance is temporary and effects to habitat are very limited at less than 3 acres, potential effects are not expected to notably contribute to cumulative effects from other actions in the project area. The project would not contribute to a trend towards federal listing for any Sensitive Species or loss of viability to the population or species due to the extensive habitat available outside the project area.

Table 6: Region 1 Sensitive Species (USDA Forest Service 2011) known to occur or that may occur on the Beaverhead-Deerlodge National Forest, habitat, whether they likely occur in the project area and potential

effects.

Species	Is there habitat and/or species presence?	Direct and Indirect Effect*	Cumulative Effects?
<p>* NI No Effect</p> <p>MIIH May affect individuals or habitat, but would not likely contribute to a trend toward federal listing or cause a loss of viability to the population or the species.</p> <p>WIFV Would affect individuals or habitat with a consequence that the action may contribute to a trend toward federal listing or cause a loss of viability to the population or species.</p> <p>BI Beneficial effect</p>			
Black-backed woodpecker (Picoides arcticus)	<p>YES</p> <p>Surrounding lodgepole trees. Possible occurrence during implementation.</p>	<p>MIIH</p> <p>Short-term temporary displacement possible to individuals during activities. Implementation would occur after July 15 which reduces likelihood of effects to nesting individuals. Some small snags may be used for project fence building and could impact nesting or foraging individuals.</p>	<p>No cumulative effects. Project effects of felling of a small number of trees is insignificant when added to other past, ongoing, and reasonably foreseeable future actions.</p>
Flammulated owl (Otus flammeolus)	<p>YES</p> <p>Surrounding Douglas-fir trees. Possible occurrence during implementation.</p>	<p>MIIH</p> <p>Short-term, temporary displacement possible to individuals during implementation. Snags used to construct fences are not large enough to provide preferred snag roosting habitat.</p>	<p>No cumulative effects. Project effects of felling of a small number of trees is insignificant when added to other past, ongoing, and reasonably foreseeable future actions.</p>

Species	Is there habitat and/or species presence?	Direct and Indirect Effect*	Cumulative Effects?
Greater sage-grouse (<i>Centrocercus urophasianus</i>)	YES Sagebrush habitat occurs in the allotments; however it is considered low quality or unsuitable. Four springs are in sage-grouse general habitat management area. Proposed activities in allotments are within 18.2 kilometers of leks. Bull Creek springs and one Andrus Creek spring are within 6.2 miles of lek buffers.	MIIH Short-term, temporary displacement is possible to individuals during activities. Direct effects would occur to 2.80 acres of sagebrush habitat due to spring developments. No proposed fence or spring development within 1.2 miles of an occupied or unoccupied lek. Long-term, sagebrush will likely regrow on these acres. Project improves riparian habitat conditions which is a beneficial effect for sage-grouse. See Table 7 for compliance with Greater sage-grouse 2015 Record of Decision.	No cumulative effects. Project effects to 2.80 acres of sagebrush habitat is insignificant when added to other past, ongoing, and reasonably foreseeable future actions.
Great Basin Pocket Mouse (<i>Perognathus parvus</i>)	YES Sagebrush habitat available and within species' range. No known detections.	MIIH Project could affect habitat and individuals on 2.80 acres of shrubsteppe habitat. Given extensive habitat outside of project area, effects are minimal.	No cumulative effects. Project effects to 2.80 acres of sagebrush habitat is insignificant when added to other past, ongoing, and reasonably foreseeable future actions.
Pygmy Rabbit (<i>Brachylagus idahoensis</i>)	YES Likely. Habitat is in the project area and burrows have been detected near the proposed Andrus Creek springs.		
Gray wolf (<i>Canis lupus</i>)	YES Existing habitat. Individuals have been documented in the general area. No known wolf dens.	MIIH Short-term, temporary displacement possible to individuals during implementation. No effects to habitat important for reproducing, feeding, and shelter.	No cumulative effects. Project effects are temporary disturbance, highly localized, and insignificant when added to other past, ongoing, and reasonably foreseeable future actions.

Species	Is there habitat and/or species presence?	Direct and Indirect Effect*	Cumulative Effects?
Spotted bat (Euderma maculatum)	YES Potential foraging and watering habitat.	MIIH No cliff or other roosting habitat in project area. Spring developments could provide watering sources. Improved riparian habitat for foraging long-term. Escape ramps would be installed in troughs to reduce drowning when water levels drop	No cumulative effects. No direct effects during implementation. Indirect effects (drowning) are reduced through mitigation, and are insignificant when added to other past, ongoing, and reasonably foreseeable future actions.
Townsend's big-eared bat (Corynorhinus townsendii)	Implementation would occur during daytime and bats would use area at night. Therefore, project would result in disturbance. Water troughs constructed may be used by bats for drinking and foraging long-term.	MIIH No cave habitat. Snags for fences not large enough for preferred roosting habitat. Spring developments could provide watering sources. Improved riparian habitat for foraging long-term. Escape ramps would be installed in troughs to reduce drowning when water levels drop.	
American Peregrine Falcon (Falco peregrinus anatum)	NO No cliff habitat. No known detections.	NI	No cumulative effects due to lack of direct or indirect effects.
Bald Eagle (Haliaeetus leucocephalus)	NO No large trees near lakes or rivers. No known detections.		
Harlequin duck (Histrionicus histrionicus)	NO No fast-moving stream habitat.		
Trumpeter Swan (Cygnus buccinator)	NO No lake habitat.		
Bighorn Sheep (Ovis canadensis)	NO No cliff habitat or known detections.		

Species	Is there habitat and/or species presence?	Direct and Indirect Effect*	Cumulative Effects?
Fisher (<i>Penkania pennanti</i>)	NO No dense forest or down wood habitat.		
Northern bog lemming (<i>Synaptomys borealis</i>)	NO No sphagnum or fen moss habitat. Only one known occurrence on the BDNF.		

Table 7: Greater Sage-Grouse Record of Decision Standards and Guidelines Direction (USDA Forest Service 2015).

Standards and Guidelines Direction	Is direction applicable to project? Has it been met?
GRSG-LG-DC-033-Desired Condition – In priority and general habitat management areas, sagebrush focal areas, and within lek buffers, livestock grazing is managed to maintain or move towards desired conditions (Table 1 in Record of Decision).	Yes. Ongoing.
GRSG-LG-ST-034-Standard – In priority and important habitat management areas and sagebrush focal areas, do not approve construction of water developments unless beneficial to greater sage-grouse habitat.	Not applicable. There are no priority or important habitat management or sagebrush focal areas in the project area.
GRSG-LG-GL-035-Guideline – Grazing guidelines should be applied in each of the seasonal habitat in table 3 (below). If values in table 3 guidelines cannot be achieved based upon a site-specific analysis using Ecological Site Descriptions, long-term ecological site potential analysis, or other similar analysis, adjust grazing management to move towards desired habitat conditions in table 1 consistent with the ecological site potential. Do not use drought and degraded habitat condition to adjust values. Grazing guidelines in table 3 would not apply to isolated parcels of National Forest System lands that have less than 200 acres of greater sage-grouse habitat.	Yes. Ongoing.
GRSG-LG-GL-036-Guideline – In priority, important, and general habitat management areas and sagebrush focal areas, when grazing permits are waived without preference or obtained through permit cancellation, consider the agency's full range of administrative authorities for future allotment management, including but not limited to allotment closure, vacancy status for resource protection, establishment of forage reserve, re-stocking, or livestock conversion as management options to maintain or achieve desired habitat conditions (table 1).	Not applicable. No grazing permits are waived.
GRSG-LG-GL-037-Guideline – Bedding sheep and placing camps within 1.2 miles from the perimeter of a lek during lekking (from March 1 to April	Not applicable. No sheep bedding or camps are proposed.

30) should be restricted.	
GRSG-LG-GL-038-Guideline – During the breeding and nesting season (from March 1 to June 15), trailing livestock through breeding and nesting habitat should be minimized. Specific routes should be identified; existing trails should be used; and stopovers on active leks should be avoided.	Not applicable. No trailing occurs in the Bull Creek or Andrus Creek allotments March 1-June 15.
GRSG-LG-GL-039-Guideline – Fences should not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, or other design features).	Not applicable. No fences are proposed within 1.2 miles from the perimeter of an occupied lek.
GRSG-LG-GL-040-Guideline – New permanent livestock facilities (e.g., windmills, water tanks, corrals) should not be constructed within 1.2 miles from the perimeter of occupied leks.	Yes. Met. No permanent livestock facilities are proposed within 1.2 miles from the perimeter of an occupied lek.

Forest Plan Standards

See Table 10 for wildlife Forest Plan Standards and project compliance.

Management Indicator Species

Forest plans designate Management Indicator Species (MIS) to represent species whose population changes are considered indicators for the effects of management activities on wildlife habitats. The goal is to provide ecological conditions to maintain or restore the productive capacity of ecosystems thereby ensuring that the viability of the majority of all native and desirable nonnative plant and animal communities is maintained over time. Table 8 lists the MIS for the BDNF and the direct and indirect effects. Cumulative effects to species that have direct or indirect effects were analyzed. Given that the level of noise disturbance is within normal administrative use levels and there are no impacts to habitat, potential effects are not expected to notably contribute to cumulative effects from other actions in the project area.

Table 8: Beaverhead-Deerlodge National Forest Management Indicator Species.

Species	Is there habitat and/or species presence?	Direct and Indirect Effects	Cumulative Effects
Rocky Mountain Elk (<i>Cervus canadensis</i>)	Yes. Presence likely.	No changes to Open Motorized Road and Trail Density or secure areas are proposed. Minor, temporary disturbance may occur during implementation. Improved riparian conditions would benefit elk foraging habitat.	No cumulative effects due to lack of direct or indirect effects.
Mountain Goat (<i>Oreamnos americanus</i>)	No. No.	Project not in known mountain goat distribution.	
Wolverine (<i>Gulo luscus luscus</i>)	Habitat present. Species not likely to occur.	See above Federally Listed and Proposed Species Section.	

Migratory Birds

The Landbird Conservation Strategic Plan, Executive Order 13186, and the North American Landbird Conservation Plan all reference goals and objectives for integrating bird conservation into forest management and planning. A December 2008 Memorandum of Understanding (MOU) between the Forest Service and Fish and Wildlife Service meets the requirements of Executive Order 13186. This MOU outlines a collaborative approach to promote the conservation and reduce the take of migratory birds. Forest Service responsibilities relative to project level planning have been considered and incorporated into the project. Table 9 lists the migratory birds that may occur or may occur in Bird Conservation Region 10 which overlaps the Rocky Mountain Region including the project area.

Effects may occur to individuals and/or habitat for the loggerhead shrike, sage thrasher, Brewer's sparrow, sage sparrow, flammulated owl, calliope hummingbird, olive-sided flycatcher, and Cassin's finch during project implementation (Table 9). These effects would be highly localized, temporary, and very minor. Less than 3 acres of habitat would potentially be impacted. Cumulative effects to species that have direct or indirect effects were analyzed. Given that less than 3 acres could be impacted and the level of noise disturbance is temporary and highly localized, potential effects are not expected to notably contribute to cumulative effects from other actions in the project area.

Table 9. Migratory Birds that occur or may occur in Bird Conservation Region 10.

Species	Is there habitat and/or species presence during implementation?	Direct and Indirect Effects	Cumulative Effects
Loggerhead shrike (<i>Lanius ludovicianus</i>)	YES Open areas with grasses and/or forbs, interspersed with shrubs and trees. Possible occurrence.	May affect individuals due to disturbance and effects to 2.80 acres of habitat. Project would occur after July 15, reducing disturbance to nesting individuals.	No cumulative effects. Project effects to 2.80 acres of sagebrush habitat are insignificant when added to past, ongoing, and reasonably foreseeable future actions.
Sage thrasher (<i>Oreoscoptes montanus</i>)	YES Sagebrush/shrub-steppe habitat. Likely to occur during implementation.		
Brewer's sparrow (<i>Spizella breweri</i>)			
Sage sparrow (<i>Amphispiza belli</i>)			
Flammulated Owl (<i>Psiloscops flammeolus</i>)	YES Douglas-fir Potential habitat. Documented in general area. Possible occurrence	May affect individuals due to disturbance. Project would occur after mid-July reducing disturbance to nesting individuals. No effects to habitat.	No cumulative effects. No effects to habitat. Disturbance effects during implementation are temporary, highly localized, and are insignificant when added to past, ongoing, and reasonably foreseeable future actions.
Calliope Hummingbird (<i>Stellula calliope</i>)	YES Open montane forest, meadows. Possible occurrence.		
Olive-sided flycatcher (<i>Contopus cooperi</i>)	YES Montane conifer forest.		

	especially burned areas with snags. Possible occurrence.		
Cassin's finch (<i>Haemorhous cassinii</i>)	YES Open coniferous forests, mature lodgepole pine. Possible occurrence.		
Bald Eagle (<i>Haliaeetus leucocephalus</i>),	NO No river or lake habitat. Not known or expected to occur.		
Swainson's Hawk (<i>Buteo swainsoni</i>)	YES Shrubsteppe, prairies, open woodlands		
Ferruginous Hawk (<i>Buteo regalis</i>)	YES Dry open country including native prairie and shrub steppe plains		
Peregrine Falcon (<i>Falcon peregrinus</i>)	NO No cliff habitat. Not known or expected to occur.		
Upland Sandpiper (<i>Bartramia longicauda</i>)	NO No prairie grasslands, wet and dry meadows, or hayfields. Not known or expected to occur.		
Long-billed Curlew (<i>Numenius americanus</i>)	No shortgrass and grazed mixed-grass prairies. Not known or expected to occur.		
Yellow-billed Cuckoo (<i>Coccyzus americanus</i>)	NO No tall deciduous forests, especially cottonwood. Not known or expected to occur.		
Black Swift (<i>Cypseloides niger</i>)	NO No steep cliffs, canyons, or waterfalls. Not known or expected to occur.		
Lewis' woodpecker (<i>Melanerpes lewis</i>)	NO Fire-maintained old-growth ponderosa pine, and riparian		
		No Effect	No cumulative effects due to lack of direct or indirect effects.

	cottonwood forest		
Williamson's sapsucker (<i>Sphyrapicus thyroideus</i>)	NO Montane conifer forest as well as aspen woodland. Not known or expected to occur.		
White-headed woodpecker (<i>Leuconotopicus albolarvatus</i>)	NO Open coniferous and deciduous forest. Not known or expected to occur.		
Willow flycatcher (<i>Empidonax traillii</i>)	NO No dense willow thickets or low, dense, riparian woodland. Not known or expected to occur.		
McCown's longspur (<i>Rhynchophanes mccownii</i>)	NO No shortgrass prairie, heavily grazed mixed-grass prairie. Not known or expected to occur.		
Black Rosy Finch (<i>Leucosticte atrata</i>)	NO No crevices, cliffs, talus in glaciers, or timberline snowfields. Not known or expected to occur.		

Findings Required by Law

National Forest Management Act - The Beaverhead-Deerlodge National Forest Land and Resource Management Plan (Forest Plan) was approved in 2009, as required by this Act. The Forest Plan has been reviewed in consideration of this project and the project meets all applicable management direction, including consistency with all applicable standards (See 2009 Forest Plan Standards table below).

On April 9, 2012, the Department of Agriculture issued a final planning rule for National Forest System land management planning (2012 Rule) 77 FR 68 [21162-21276]). None of the requirements of the 2012 Rule apply to projects and activities on the Beaverhead-Deerlodge National Forest, as the 2009 Beaverhead-Deerlodge Forest Plan was developed under a prior planning rule (36 CFR §219.17(c)). Furthermore, the 2012 Rule explains, "[The 2012 Rule] supersedes any prior planning regulation. No obligations remain from any prior planning regulation, except those that are specifically included in a unit's existing plan. Existing plans will remain in effect until revised" (36 CFR §219.17).

Endangered Species Act - See the "Federally Listed and Proposed" Section of this document, and Table 5, for a summary of the effects of this project to Endangered, Threatened, or Candidate Species for the Beaverhead-Deerlodge NF (list dated January 8, 2015). The summary is based on a more thorough analysis available in the project record. This project is consistent with the requirements of the Endangered Species Act.

Sensitive Species (Forest Service Manual 2670) - This direction requires analysis of potential impacts to

sensitive species and the Regional Forester approved the sensitive species list on February 25, 2011 (updated August 26, 2011 to include white bark pine). Our review of the potential effects of this decision upon the sensitive species has been completed and the analysis documented in the project file and Resource Condition Table above.

Environmental Justice (Executive Order 12898) - This Order requires consideration of whether projects would disproportionately affect minority or low-income populations in or around the project area. Based on internal review and public scoping, the proposed action did not identify any adversely impacted local minority or low-income populations.

Clean Water Act – The intent of the Act is to restore and maintain the integrity of waters. The Forest Service complies with this Act through the use of Best Management Practices (BMPs). This decision incorporates Best Management Practices to ensure protection of soil and water resources and complies with the Clean Water Act and State water quality standards.

Clean Air Act – Under this Act, areas of the country were designated as Class I, II or III airsheds for “Prevention of Significant Deterioration” purposes. There will be no air quality impacts as a result of this decision.

The National Historic Preservation Act – As discussed earlier in this document and in detail in the project file, impacts to cultural resources are not expected.

Migratory Bird Treaty Act – There will be no known substantial losses of migratory bird habitat expected from the implementation of this proposal.

National Environmental Policy Act (NEPA) – This Act requires public involvement and consideration of potential environmental effects. This decision memo and the project record provide documentation of NEPA compliance.

Other Laws or Requirements – The proposed action is consistent with all other Federal, State, and/or local laws or requirements.

Analyses beyond those documented here were completed to support the Responsible Official’s decisions and to ensure compliance with laws and regulations such as the Endangered Species Act, the National Historic Preservation Act, the Clean Water Act, and the National Forest Management Act. Those analyses and associated references are part of the project record and available for public review at the Dillon Ranger District office.

Table 10. 2009 Forest Plan Standards for the Beaverhead-Deerlodge National Forest

Standard	Standard Description	How does the project meet the standard?
Air Quality		
1.	Meet Smoke management requirements according to the Idaho/Montana Airshed Group Operating Guide.	The project does not involve any release of smoke.
American Indian Rights and Interests		

Standard	Standard Description	How does the project meet the standard?
1.	No impact to identified TCPs shall occur until Forest officials consult with the tribe or other cultural group who identified the property and their concerns have been considered. TCPs shall be identified through proactive consultation with affected tribes.	Not applicable: there are no currently identified TCPs within the project area.
Aquatic Resources		
1.	<p>Riparian Conservation Area (RCA) -1 Any activity in RCAs shall be designed to enhance, restore, or maintain the physical and biological characteristics of the RCA by implementing the following requirements.</p> <p>Activities in RCAs, that meet or exceed RMOs, must be designed to maintain existing stream function.</p> <p>Activities in RCAs that are not meeting RMOs shall include a restoration component, commensurate with the scope of the activity affecting the fishery, which trends towards accomplishing desired stream function, as part of the project.</p> <p>Activities in RCAs shall not result in long-term degradation to aquatic conditions. Limited short-term effects from activities in the RCA may be acceptable when outweighed by the long-term benefits to the RCA and aquatic resources.</p>	Project does not include any activities in the RCA. RCAs will benefit from this project by the development of upland watering troughs encouraging livestock to spend more time away from riparian areas.
2.	Evaluate the risks of aquatic nuisance /exotic species introduction as part of project analysis (Scale – Project area).	Project is not occurring in the RCAs so there is little risk of AIS species.
3.	Snow courses, snow pack telemetry sites, and precipitation gauges will be protected from project activity including maintenance of an adequate buffer to maintain reliability (Scale – Project Area).	Not applicable.
4.	Watersheds that provide water for public water supplies (i.e. where waters are classified by the State of Montana as A-Closed or A-1) shall be managed to meet State water quality standards established for protection of drinking water quality and be consistent with applicable source water protection plans.	Not applicable; no public water supplies are in the project area.
5.	New activities within known sensitive amphibian breeding sites and natal areas during breeding and juvenile rearing periods will not cause a threat to population viability or a trend toward federal listing (Scale - Breeding sites and natal areas identified at the project level).	No known breeding or natal sites occur in the project area
6.	New management activities in Restoration Key Watersheds will be consistent with recovery of desired aquatic systems.	Not applicable; there are no Restoration Key Watersheds in the project area

Standard	Standard Description	How does the project meet the standard?
7.	Guidance defined in 16.2 – Section 1 (Permit Administration) of Beaverhead-Deerlodge Supplement No. 2209.13-98-1 to the Grazing Permit Administration Handbook Title 2209.13 will become mandatory rather than discretionary in Fish Key Watersheds when grazing contributes to degraded westslope cutthroat or bull trout stream conditions, and there is non-compliance with livestock grazing standards; or other aspects of livestock grazing permits terms and conditions.	The Andrus Creek watershed is a Fish Key Watershed, but is in compliance. This project will improve conditions in the riparian area by limiting impacts of livestock to the riparian areas.
8.	New projects will have a beneficial effect or no measurable negative effect on westslope cutthroat or bull trout in Fish Key Watersheds. Short term negative effects are acceptable if outweighed by long term benefits.	This will have a positive effect on westslope cutthroat trout populations in the project area.
9.	Restoration projects should correct existing problems, not mitigate effects created by proposed activities (WR 3).	Not applicable; no restoration activities are proposed.
10.	If the only suitable location for incident bases, camps, helibases, staging areas, helispots and other centers for incident activities are within the RCA, an exemption may be granted following a review and recommendation by a resource advisor. The line officer will prescribe the location, use conditions, and rehabilitation requirements with avoidance of adverse effects to native fish and sensitive aquatic species as a primary goal.	Not applicable; outside the scope of this project.
11.	Monitor water quality and aquatic resources in fish key watersheds where chemical retardant, foam, or additives are delivered to surface waters. Monitoring should take place as soon as conditions allow for safe access.	Not applicable; outside the scope of this project.
12.	Require instream flows and habitat conditions for hydroelectric and other surface water development proposals to maintain or restore riparian resources, favorable channel conditions, fish passage, reproduction, and growth. Coordination will occur with the USFWS, other federal, state, and local agencies. (LH 1). During re-licensing of hydroelectric projects, provide written and timely license conditions to the Federal Energy Regulatory Commission (FERC) , that require fish passage and flows and habitat conditions that maintain/restore riparian resources and channel integrity. Coordinate re-licensing projects with the appropriate state agencies.	Not applicable; outside the scope of this project.

Standard	Standard Description	How does the project meet the standard?
13.	Locate new hydroelectric ancillary facilities for existing permits, outside RCAs. For existing ancillary facilities inside the RCA essential to proper management, provide recommendations to FERC to assure the facilities would not prevent attainment of the desired stream function and adverse effects on native fish and sensitive aquatic species are avoided. Where these objectives cannot be met, provide recommendations to FERC that such ancillary facilities should be relocated. Locate, operate, and maintain hydroelectric facilities that must be located in RCAs to avoid effects that would retard or prevent attainment of the desired stream function and avoid adverse effects on native fish and sensitive aquatic species (LH 2).	Not applicable; outside the scope of this project.
14.	Grazing practices that prevent attainment of desired stream function, or are likely to adversely affect threatened or endangered species, or adversely impact sensitive species, are modified to attain desired stream function or population objectives (GM 1).	Proposed project will benefit riparian areas and populations.
15.	Locate new livestock handling and/or management facilities outside of Riparian Conservation Areas. For existing livestock handling facilities inside Riparian Conservation Areas, assure facilities do not prevent attainment of desired stream function. Relocate or close facilities where these objectives cannot be met (GM 2).	Not applicable; project is not proposed within the RCAs
16.	Limit livestock trailing, bedding, watering, salting, loading, and other handling efforts to those areas and times that would not retard or prevent attainment of desired stream function or adversely affect native fish and sensitive aquatic species (GM 3).	This project will benefit stream function and aquatic populations
17.	If a notice of intent indicates a mineral operation would be located in an RCA, the effects of the activity on native fish and sensitive aquatic species is considered in the determination of significant surface disturbance pursuant to 36 CFR 228.4. For operations in an RCA, operators take all practicable measures to maintain, protect, and rehabilitate fish and wildlife habitat, which may be affected by the operations. Bonding requires the cost of stabilizing, rehabilitating, and reclaiming the area of operation will be covered (MM 1).	Not applicable; outside the scope of this project.
18.	Where no alternative to placing facilities in RCAs exists, facilities are located and constructed in ways that avoid impacts to RCAs and streams and adverse effects on native fish and sensitive aquatic species. Where no alternative to road construction exists, roads are kept to the minimum necessary for the approved mineral activity. Roads no longer required for mineral or land management activities are closed, revegetated, or obliterated (MM 2).	Not applicable; outside the scope of this project.
19.	Solid and sanitary waste facilities in RCAs are prohibited. If no alternative to locating mine waste (waste rock, spent ore, tailings) facilities in RCAs exists, releases can be prevented, and stability can	Not applicable; outside the scope of this project.

Standard	Standard Description	How does the project meet the standard?
	<p>be ensured, then (MM 3):</p> <p>Analyze the waste material using the best conventional sampling methods and analytic techniques to determine its chemical and physical stability characteristics.</p> <p>Locate and design the waste facilities using the best conventional techniques to ensure mass stability and prevent the release of acid or toxic materials. If the best conventional technology is not sufficient to prevent such releases and ensure stability over the long term, prohibit such facilities in Riparian Conservation Areas.</p> <p>Monitor waste and waste facilities to confirm predictions of chemical and physical stability, and make adjustments to operations as needed to avoid adverse effects to native fish and sensitive aquatic species and to attain desired stream function.</p> <p>Reclaim and monitor waste facilities to assure chemical and physical stability and re-vegetation to avoid adverse effects to native fish and sensitive aquatic species, and to attain the desired stream function.</p> <p>Reclamation bonds are adequate to ensure long-term chemical and physical stability and successful re-vegetation of disturbed areas and mine waste facilities.</p>	
20.	Sand and gravel mining and extraction within RCAs are prohibited (MM 5).	Not applicable; not a part of this project.
21.	Provide and maintain fish passage at new, replacement, and reconstructed road crossings of existing and potential fish-bearing streams, unless barriers are determined beneficial for native fish and/or sensitive aquatic species conservation (RF 5).	Not applicable; fish passage is outside the scope of this project.
22.	Complete watershed analysis prior to constructing roads or landings in RCAs within fish or restoration key watersheds (RF 2a).	Not applicable; logging is not a part of this project.
23.	Where adjustments of recreation use impacts on desired stream function are not successful terminate activity or occupancy (RM 1).	Not applicable; outside the scope of this project.
24.	Chemical pesticides and toxicants will be applied in a manner consistent with desired stream function and avoids adverse biological effects (RA 3).	Not applicable; pesticide application is not a part of this project.
25.	Project related storage of fuels and toxicants within Riparian Conservation Areas is prohibited. Refueling within Riparian Conservation Areas is prohibited except for emergency situations, in which case refueling sites must have an approved spill containment plan (RA 4).	Not applicable; no work is occurring in an RCA.

Standard	Standard Description	How does the project meet the standard?
26.	Fuelwood cutting and salvage in RCAs will not prevent or retard attainment of desired stream function (TM 1a).	Not applicable; fuelwood and salvage cutting are not a part of this project.
27.	Vegetation and/or fuel management prescriptions in RCAs will be for the purpose of restoring, enhancing, or protecting the physical and biological characteristics of the RCA including Riparian Management Objectives. Vegetation and/or fuel treatments, for the purpose of protecting urban interface, private property and other investment, and public safety in RCA's shall be designed so as not to prevent the attainment of desired stream function (TM 1).	Not applicable; project is not occurring in an RCA.
28.	Complete the evaluation of on-going activities in Fish Key Watersheds. Activities or conditions inconsistent with goals and objectives will be identified within 3 years and timeframes for implementation of mitigation will be identified.	The evaluation of the activities is outside of the scope of this project area. For impacts of the project refer to response to Standard 7 and the specialist report.
Clean Water Act	The project must be in compliance with state TMDL standards	The project is not occurring on TMDL listed streams.
Executive Order 11990	Projects will, "minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands."	Spring developments will have small impact to the wetland areas, but the fencing around the springs will protect the wetland from further impacts from livestock and wildlife.
Executive Order 11988	Determine impact the project will have to the floodplain	The proposed project is outside of the floodplain in the project area.
Executive Order 13112	Prevent the introduction and spread of invasive species	No known AIS species are known to occur in the project area. Introduction of AIS species is unlikely at the proposed sites

Standard	Standard Description	How does the project meet the standard?
Executive Order 12962	To the extent possible and practical, improve the quality, function, and sustainable productivity and distribution of aquatic resources for increased recreational fishing opportunities.	Recreational fishing will likely be improved by general improvement to the riparian areas.
Regional Sensitive Species	The impact to species listed on the Regional Sensitive Species List	Western Cutthroat Trout will benefit from this project by improvement to the riparian areas.
Cooperative Conservation Agreement for Westslope and Yellowstone Cutthroat Trout	Compliance with the MOUCA for the long term persistence of cutthroat trout	Western Cutthroat Trout will benefit from this project by improvement to the riparian areas.
Endangered Species Act	Impact to ESA species within the project area.	Not applicable, there are no aquatic listed species in the project area.
Fire Management		
1	Wildland fire use plans shall be developed in coordination with the appropriate county, state, tribal, and other federal agencies.	Not applicable; this project does not involve wildland fire use.
2.	Wildland fire use is an available tool for all unplanned ignitions.	Not applicable; this project does not involve wildland fire use.
Heritage Resources		

Standard	Standard Description	How does the project meet the standard?
1.	Heritage resources determined eligible for listing in the National Register of Historic Places will be preserved in place, or a consensus determination of “no adverse effect” will be reached with the Montana SHPO, the Advisory Council on Historic Preservation, and appropriate Indian tribes.	Standard 1: Avoidance of Direct Impacts- Cultural resources inventory has been completed for ground disturbing activities to identify cultural resources. National Register eligible sites will be preserved in place and a consensus determination of No Adverse Effect has been reached with concurrence of the MT SHPO.
2.	Unplanned discoveries of heritage resources during project implementation shall cause project operations in the area of the discovery to cease until analysis and evaluation of the heritage resources are completed, including consultation with the Montana SHPO and appropriate Indian tribes.	Standard 2: Avoidance of Inadvertent Impacts - Should additional cultural resources be identified during the course of project implementation, operations will cease and the South Zone Archaeologist notified to complete resource documentation and evaluation for eligibility.
3.	Heritage protection measures will be added to all appropriate contracts, sales documents, and special use permits.	Standard 3: Cultural resources awareness and protection language will be included and addressed during allotment management plan reviews.
Infrastructure		
1.	Facility Design: Use the Rocky Mountain and Great Plains sections of the Built Environment Image Guide, (USDA FS-710, Dec. 2001), or equivalent for development of recreation sites, administrative sites, and approval of special use structures and facility design.	Not applicable; Proposed action does not include any of these developments.

Standard	Standard Description	How does the project meet the standard?
Lands		
1.	Energy transmission facilities shall be located only in designated utility corridors shown on the Utility Corridor and Communication Site map at the end of Chapter 3. Energy gathering or distribution facilities may be located outside of designated corridors.	Not applicable; this proposed action does not involve energy transmission, gathering, or distribution facilities.
2.	Wireless telecommunication facilities shall be located in designated communication sites and utility corridors shown on the Utility Corridor and Communication Site map. Exceptions may be made for non-ground disturbing temporary facilities that are in place for less than one year.	Not applicable; this proposed action does not involve telecommunication facilities.
3.	Comply with direction in USDA Forest Service Designation of Section 368 Energy Corridors on National Forest System Land in 10 Western States Decision by Secretary of Agriculture To Amend Land Management Plans Described as the Environmentally Preferred Alternative January 14, 2009.	Not applicable; this proposed action does not involve energy corridors.
Livestock Grazing		

Standard	Standard Description	How does the project meet the standard?
1.	<p>The interim standards in Table 6 apply to livestock grazing operations unless or until specific long-term objectives, prescriptions, or allowable use levels have been designed through individual resource management plans or site-specific NEPA decisions; for example, revised allotment management plans or Wilderness management plans.</p> <p>These interim standards are designed to prevent reduction of existing water quality or physical or biological functions of riparian-wetland areas from management activities. The standards are a means to assure use remains at levels which maintain existing riparian-wetland function. The maximum utilization, minimum stubble height or minimum streambank standards may be incorporated in livestock annual operating plans. In streams containing 90% or greater, genetically pure westslope cutthroat trout (or other genetic purity requirement as defined by Montana State Westslope Cutthroat Trout Conservation Strategy or Federal Recovery Plan), managers must use the interim standard for WCT in Table 6. Interim standards apply to the following situations:</p> <p>Any allotment management plan lacking riparian management objectives and guides designed specifically for that allotment.</p> <p>Any riparian recreation site used primarily by recreation stock.</p> <p>Any outfitter operation where stock are grazed in a riparian area that lacks a specific riparian grazing strategy in the annual operating plan.</p>	Both allotments are managed under interim grazing standards. This project will give the permittee's additional tools to aid them in meeting said standards.
2.	Domestic livestock grazing will not be allowed in developed recreation sites unless specifically permitted.	N/A; no developed recreation sites are located in the project areas.
3.	Allotment management plans will identify specific criteria for special areas, such as wet meadows, where limiting grazing at certain times of the years or under certain conditions is necessary to protect resources.	N/A; AMP's are outdated, therefore allotments are managed under 2009 Forest Plan interim grazing standards.
4.	Base Property Requirement - ownership of facilities and land capable of producing feed for livestock 50% of the time permitted livestock are not grazing on National Forest, will be demonstrated before issuing grazing permits.	Both permittees fully meet the Base Property Requirement.
Minerals, Oil, and Gas		

Standard	Standard Description	How does the project meet the standard?
1.	Use the following table to describe the lease terms and prescribe stipulations for the Beaverhead Unit. Appendix B contains detailed language. (see Forest Plan Chapter 3, page 27).	Not applicable; the proposed action contains no minerals, oil, or gas activities.
2.	Any new road constructed for oil and gas activity will be obliterated unless the road is needed as part of the Forest Service permanent transportation system.	Not applicable; the proposed action contains no oil and gas activity.
3.	All drill pads will be obliterated.	Not applicable; there are no drill pads in the project.
Recreation and Travel Management		
1.	Permanent road construction is not allowed in summer non-motorized allocations or in areas evaluated for wilderness potential.	Project entails no road construction
2.	Motorized vehicles are not allowed in summer or winter non-motorized allocations except for permitted or administrative use.	Motorized and non-motorized travel not affected
3.	<p>Restrict year-round, wheeled motorized travel to designated routes or areas.</p> <p>Where routes have not been designated through site specific travel planning, restrict motorized vehicles to open motorized routes identified on the Forest Plan Interim Roads and Trails Inventory GIS Layer displayed on page 53 of the Forest Plan. Motorized wheeled travel on routes leading to identified dispersed campsites is allowed. Exceptions may be authorized for:</p> <p>Motorized wheeled cross-country travel for any military, fire, search and rescue, or law enforcement vehicle used for emergency purposes.</p> <p>Authorized motorized wheeled cross-country travel is limited to official administrative duties or emergency services such as, fire suppression, prescribed fire, noxious weed control, vegetation restoration, surveying, and law enforcement.</p> <p>Motorized wheeled cross-country travel for other government entities on official administrative business as authorized through the normal permit processes or a memorandum of understanding.</p> <p>Motorized wheeled cross-country travel for lessees and permittees limited to terms described in the federal lease or permit.</p>	Cross country motorized travel will be administratively authorized for project completion and be short in duration and intensity.

Standard	Standard Description	How does the project meet the standard?
4.	Extreme sport courses such as motocross trails, technical mountain bike courses, and motor vehicle challenge routes will not be constructed.	Not applicable; None proposed with project.
5.	New outfitter and guide permits or increases in existing permits, will be only be made based on need, administrative capability, and a suitable mix of guided and non-guided public capacity determined by a forestwide capacity study. This mix may vary by type of activity and/or season of use. Capacity validation will be made on an area-specific basis when the general forestwide capacity determination does not adequately address the management situation. Heli-skiing operations will not be permitted.	No effect to proposed or existing outfitter guide permits.
6.	New recreation resorts or residence tracts will not be permitted, nor will permits be issued for unoccupied tracts or lots.	No new permits planned with this proposal
7.	Manage summer non-motorized allocations for either a primitive or semi-primitive non-motorized setting from May 16 thru December 1, (page 54).	Motorized / non-motorized travel will not be affected.
8.	Manage winter non-motorized allocations for a primitive or semi-primitive non-motorized setting from December 2 thru May 15, (page 55).	Winter motorized / non-motorized travel will not be affected.
9.	Manage summer backcountry allocations for a semi-primitive motorized setting from May 16 thru December 1, (page 54).	No change with this proposal.
10.	Manage recommended Wilderness for primitive or semi-primitive non-motorized settings and protect Wilderness character.	No recommended Wilderness lies within the project area
11.	Commercial timber harvest is prohibited in recommended Wilderness.	Commercial timber harvest is not part of the proposal.
12.	Road construction is not permitted in recommended Wilderness.	Project is outside of Wilderness
13.	Wheeled or motorized vehicles designed for the primary purpose of transporting people, except for wheel chairs, are prohibited in recommended Wilderness except for permitted or administrative uses.	Project is outside of Wilderness
Scenic Resources		

Standard	Standard Description	How does the project meet the standard?
1.	Where no minimum SIOs are identified by landscape or management area - prior to the completion of a forestwide scenic integrity map – the objectives for scenery shall be determined by procedures outlined in the Landscape Aesthetics Handbook, Agricultural Handbook No. 701. The analysis shall use the Scenic Concern Level List in Appendix A, Scenic Attractiveness GIS layer, and the Scenery Integrity Level Matrix below. (See Forest Plan Chapter 3, page 33).	SIO identified as LOW in all project areas. Human activities of vegetative and landform alterations may dominate the original, natural landscape character but should appear as natural occurrences when viewed at background distances.
2.	Projects in non-motorized and summer backcountry allocations will be designed to meet a minimum SIO of Moderate. Use the Scenic Concern Level List in Appendix A, Forestwide Scenic Attractiveness GIS layer, and Scenic Integrity Level Matrix above to determine a site specific SIO. Project-level analysis may determine a higher SIO to be appropriate.	Project meets minimum SIO of moderate.
3.	Projects in foreground areas of scenic byways, national scenic trails or wild and scenic rivers will be designed to meet the SIO of at least High.	Not applicable; project is not in foreground of scenic byway, national scenic trails, or wild and scenic rivers.
Soils		
1.	The most current Region 1 Soil Quality Standards are adopted as forest plan soil standards.	This project meets current Region 1 soil quality standards in that the spring developments, including pipeline installation, and construction of a hardened crossing would provide benefits to hydrology, aquatics, and soils in the long term despite the compaction and displacement that would occur at pipeline excavation areas and crossing site.

Standard	Standard Description	How does the project meet the standard?
2.	Ground based yarding shall not be allowed on slopes exceeding 35% without site-specific environmental analysis that shows damage is unlikely and soil goals and objectives can be met.	None shall occur within the project.
Special Designations		
1.	Research Natural Areas or Special Interest Areas will be managed in accordance with their individual management plans in addition to the regulations (36 CFR 251.23), and the policy (FSM 4063 and 2370) pertaining to these areas.	Part of the project occurs within Inventoried Roadless Area. The proposed activities are within the regulations for IRA.
2.	Streams determined to be Eligible for protection under the Wild and Scenic Rivers Act will be protected to maintain Outstandingly Remarkable Values. Standards for protection are provided in Forest Service Manual 1909.12.8.2.	No streams within the project area are determined eligible for protection under the Wild and Scenic Rivers act.
Timber Management		
1.	On lands suitable for timber production, even aged harvest may occur only upon a finding that it is the appropriate and optimum method for the timber type and will contribute to meeting vegetative objectives for the site. Such harvest must be consistent with the protection of soil, watershed, fish, wildlife, recreation, and aesthetic resources. Harvest areas shall be blended to the extent practicable with the natural terrain.	Not applicable; this project proposes no commercial timber harvest.
2.	On lands suitable for timber production, the maximum size of openings created by one regeneration harvest operation shall not exceed 40 acres. Exceptions can be made where a natural event, such as fire, insect, disease, or wind throw created an undesirable opening. A regeneration harvest larger than 40 acres may be allowed after public notice, and review and approval by the officer one level above the responsible official. This only applies to harvest on suitable timber lands for timber production activities.	Not applicable; this project proposes no commercial timber harvest.

Standard	Standard Description	How does the project meet the standard?
3.	On lands suitable for timber production, even aged management regeneration harvest shall not occur unless the stand has reached the culmination of mean annual increment. An exception occurs where the primary purpose of treatment is for wildlife enhancement, visual enhancement, riparian area improvement or public safety or protection of property. The culmination of mean annual increment of growth requirement does not apply to cutting for experimental or research purposes; to non-regeneration harvests, such as thinning or other stand improvement measure; to management of uneven aged stands or to stands under uneven aged silvicultural system; and to salvage or sanitation harvesting of timber stands which are substantially damaged by events such as fire, insects, disease or wind throw. This only applies to harvest on suitable timber lands for timber production activities.	Not applicable; this project proposes no commercial timber harvest.
4.	Replace natural barriers to livestock movement removed by harvest activities with some other barrier.	Not applicable; this project proposes no commercial timber harvest.
5.	When trees are cut to achieve timber production objectives the cuttings shall be made in such a way as to assure that the technology and knowledge exists to adequately restock the lands.	Not applicable; this project proposes no commercial timber harvest.
6.	The following Timber Harvest Classification Protocol establishes where timber harvest is not allowed and where timber harvest is permitted to meet other resource objectives. (See Forest Plan Chapter 3, pages 39-42.	Not applicable; this project proposes no commercial timber harvest.
Vegetation		
1.	Mechanical vegetation treatments and prescribed fire in old growth stands (see Glossary) do not reduce the age and number of large trees and basal area below the 'minimum criteria' required for Eastern Montana old growth in Green et al, Table 3. Removing hazardous fuels within old growth stands is allowed if conducted in a manner that meets this requirement. This requirement does not apply to hazard tree removal and other public safety needs.	Not applicable; there are no mechanical vegetation treatments or prescribed fire proposed.

Standard	Standard Description	How does the project meet the standard?
2.	Silvicultural examinations and prescriptions will be required prior to timber manipulation or silvicultural treatment. Exceptions are allowed for removal of trees that block vision along roads, removal of hazard trees, clearing of rights-of-way, clearing for mineral development, Christmas tree sales in encroachment areas, and removal of firewood.	No timber manipulations or silvicultural treatments are proposed. A small number of small diameter lodgepole pine snags may be cut to access fence construction locations.
Wildlife Habitat		
1.	From October 15 to December 1 Hunting Units that exceed the open motorized road and trail density objective will have no net increase in designated open motorized road and trail mileage (Scale - Hunting Units on National Forest lands).	Travel restrictions would be followed.
2.	Landscapes that exceed the open motorized road and trail objective will have no net increase in designated open motorized road and trail mileage (Scale – Landscapes on National Forest System Lands).	Travel restrictions would be followed.
3.	<p>Mechanical vegetation treatments will:</p> <p>Retain all snags greater than 20" dbh (except for hazard trees).</p> <p>In addition, do not reduce the number of snags greater than 15.0" dbh per acre in treatment units below the levels shown in the Table 12, calculated as an average for the total treatment unit acreage in a project area. This calculation allows variability among treatment units which produces a more natural clumpy distribution. (See Forest Plan Chapter 3, page 48).</p> <p>If there are insufficient snags in treatment units, live trees in the same size class must be retained and counted towards the snag requirement. These would be in addition to any requirements of Standard 4.</p> <p>These per acre requirements do not apply to the treatment units if analysis shows the levels of snags will be met for the project area as a whole.</p> <p>If, in the project area as a whole, there are insufficient live trees and/or snags greater than 15.0" dbh, the standard is deemed complied with by retention of the existing live trees and/or snags greater than 15.0" dbh in the treatment units.</p>	<p>A small number of small diameter lodgepole pine snags may be cut to access fence construction locations.</p> <p>No snags >15" dbh would be removed.</p>

Standard	Standard Description	How does the project meet the standard?
4.	Do not reduce the number of live trees greater than 10.0" dbh per acre in regeneration harvest treatment units (to provide future snags) below the levels shown in Table 13 on the next page. (See Forest Plan Chapter 3, page 49).	A small number of small diameter lodgepole pine trees may cut to access fence construction locations. This project is not a regeneration harvest treatment unit. Average live trees >10" dbh per acre would not change.
5.	Sheep allotments in the Gravelly Landscape which become vacant will be closed to sheep grazing or the vacant allotment may be used by an existing Gravelly Landscape sheep permittee, with no increase in permitted use (Scale - Gravelly Landscape).	Not applicable. The project does not occur in the Gravelly Landscape.
6.	The Grizzly Bear Amendment applies to only the Beaverhead portion of the BDNF and is incorporated as Appendix G (USDA 2006b).	The project is outside of the GYA.
7.	The Northern Rockies Lynx Management Direction (2007) is included in Appendix G, and will apply to the BDNF as described in the Northern Rockies Lynx Management Record of Decision.	The project is consistent with the BDNF Forest Plan Lynx Management direction (USDA Forest Service 2007).

Standard	Standard Description	How does the project meet the standard?
8.	Within 18 kilometers of documented active or inactive sage grouse leks, do not remove sagebrush within 300 meters of riparian zones, meadows, lakebeds or farmland, unless site specific analysis indicates such removal promotes achievement of the sagebrush habitat goal. Springs developed for livestock water in these areas must be designed to maintain free water and wet meadows. See also Table 7 for Forest Plan direction under the Greater Sage-grouse Record of Decision (USDA Forest Service 2015).	Documented leks occur within 18 kilometers of proposed spring development sites in both allotments. Excavation for pipelines and spring developments will effect approximately 0.80 acres of sage-brush within 300 meters of riparian zones; however, this project would improve riparian conditions for sage-grouse and therefore would improve habitat for sage-grouse. Springs developed for water in these areas would maintain free water and wet meadows.
9.	Mitigate, through avoidance or minimization, management actions around known active nest sites of threatened, endangered, proposed candidate, and sensitive bird species, if those actions would disrupt reproductive success during the nesting period. During project planning consider applicable science regarding species needs (such as nesting periods and buffers) and site-specific considerations. This standard also applies to Great Gray Owl and Northern Goshawk.	No known active nests of TES bird species occur in the project area. If active TES bird nests are found within project area, notify the District Wildlife Biologist within 24 hours for appropriate mitigation.
10.	When closing entrances to abandoned mines, determine whether suitable habitat for bats exists, and where it does, provide access for bats.	There are no known abandoned mines in the project area.
11.	Implement the most current U.S. Fish and Wildlife Service Terms and Conditions for wolves in the northwest Montana recovery area (west of I-15 and north of I-90) until such time as the gray wolf is delisted. (See Appendix I)	The wolf was delisted from the ESA in May 2011. It is analyzed as a sensitive species on the BDNF and in this report.

Standard	Standard Description	How does the project meet the standard?
12.	<p>Provide habitat for species requiring large woody debris in forested habitat types by retaining post project outcomes for regeneration harvest of the following: (Scale project)</p> <p>Lodgepole cover type - 6 pieces/ac with small end diameter equal to or greater than 8 inches and 10-ft long.</p> <p>Douglas-fir cover type - 6 pieces/ac with small end diameter equal to or greater than 12 inches and 10-ft long.</p>	Habitat for species requiring large woody debris would not be affected.

Agencies and Individuals Consulted

The Forest Service provided information on this project directly to 90 individuals and organizations, including State and local land management agencies, Andrus and Bull Creek Allotment recreation user groups, outfitters, guides, range permittees, and other interested parties. Tribal government to government consultation also takes place.

Two comments were received during the initial scoping process:

One comment was received by Monty Hankinson of M&M Outfitters expressing support for the projects. He stated that "I am in favor of this project. Any spring improvements will help keep animals out of the stream riparian areas. I think the fence project will help the rancher keep his cattle where they belong. I am a strong supporter of having cattle pasture the national forest. It is good for the country and the animals."

Another comment was received by Josh Osher, Montana Director of Western Watersheds Project, expressing concern about the projects. Josh stated that he "urges Forest Service to undertake a thorough evaluation including the preparation of an EA to determine the impacts of the proposed water developments in the Andrus and Bull Creek allotments. We further urge the Forest Service to reissue a new scoping notice that provides more detailed information about the proposed actions as outlined above."

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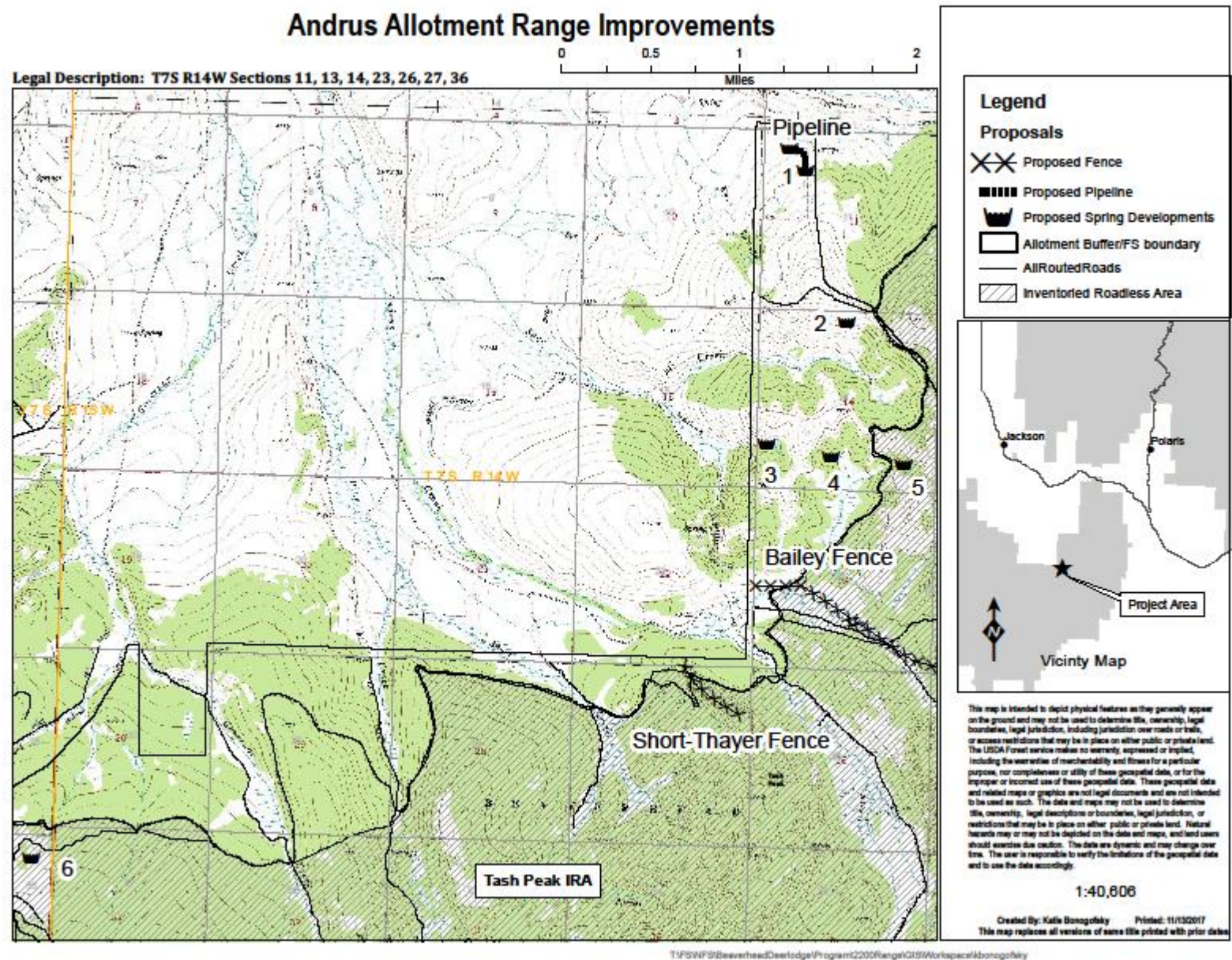
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Maps

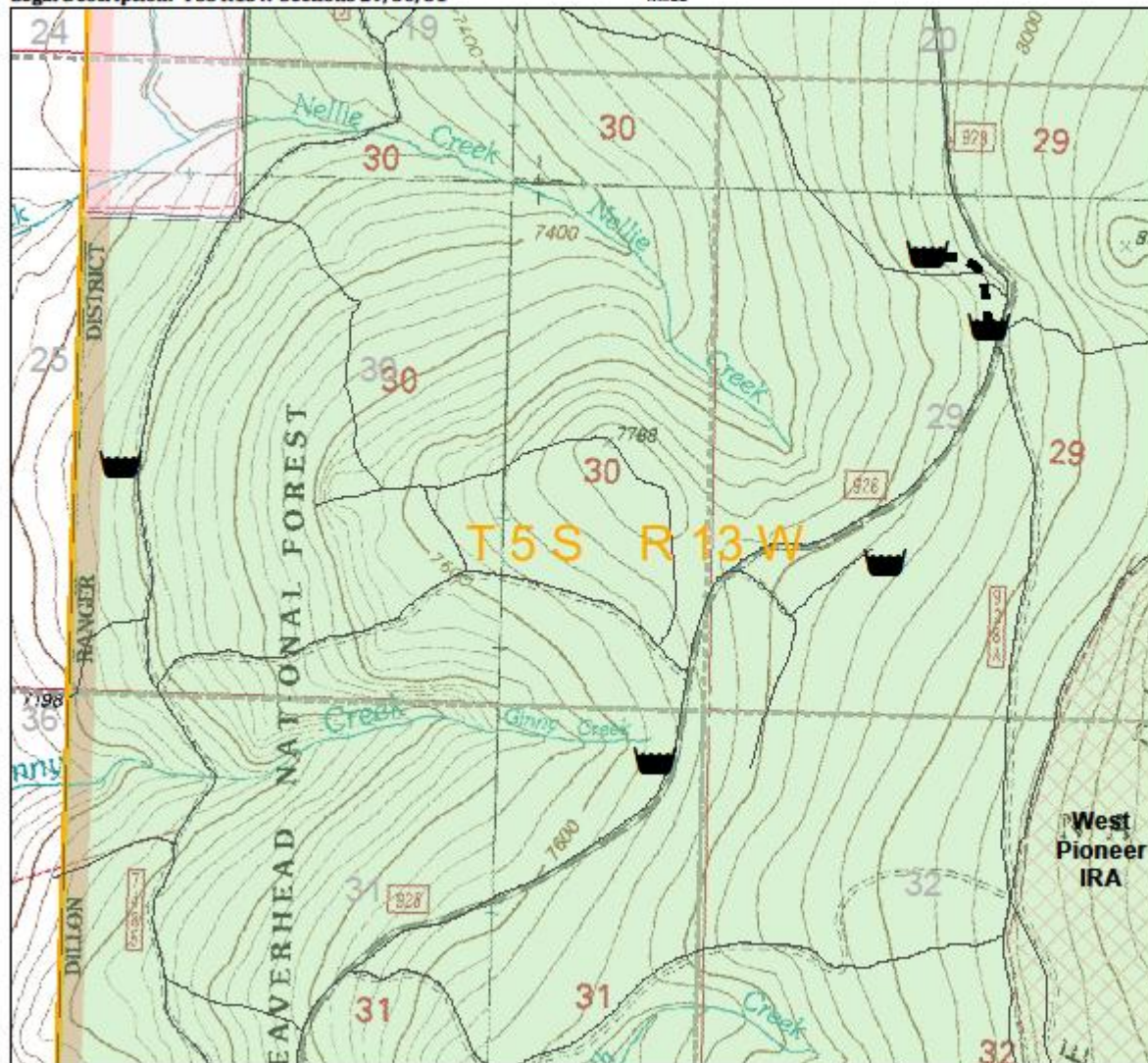
Figure 4. Map proposed developments on the Andrus Allotment



Bull Creek Allotment Spring Developments

Legal Description: T5S R13W Sections 29, 30, 31

0 0.15 0.3 0.6
Miles



Legend

Proposed_Springs

Proposed_Pipeline

AllRoutedRoads

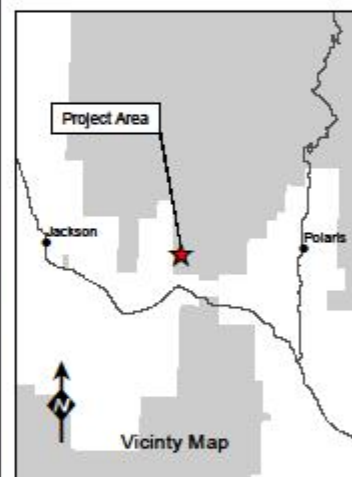
BasicOwnership

OWNER CLASSIFICATION

NON-FS

USDA FOREST SERVICE

Inventoried Roadless Areas - LOCAL



This map is intended to depict physical features as they generally appear on the ground and may not be used to determine title, ownership, legal boundaries, legal jurisdiction, including jurisdiction over roads or trails, or access restrictions that may be in place on either public or private land. The USDA Forest Service makes no warranty, expressed or implied, including the warranties of merchantability and fitness for a particular purpose, nor completeness or utility of these geospatial data, or for the improper or incorrect use of these geospatial data. These geospatial data and related maps or graphics are not legal documents and are not intended to be used as such. The data and maps may not be used to determine title, ownership, legal descriptions or boundaries, legal jurisdiction, or restrictions that may be in place on either public or private land. National boundaries may or may not be depicted on the data and maps, and land users should exercise due caution. The data are dynamic and may change over time. The user is responsible to verify the limitations of the geospatial data and to use the data accordingly.

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This map replaces all versions of same title printed with prior dates.

T:\FSNF\Beecherhead\Deer Lodge\Program\2200\Range\GIS\Workspace\Kbonogohky\Bull Creek Allotment Range Improvements

Figure 5. Map of proposed developments on the Bull Creek Allotment